



DELHI POLLUTION CONTROL COMMITTEE

ANNUAL REPORT

2021-22





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Chairman, DPCC



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Member Secretary

PREFACE

As environmental concerns continue to grow, organizations like the Delhi Pollution Control Committee (DPCC) play a vital role in addressing these issues. It's their primary responsibility to inform and educate the public about environmental actions and initiatives.

Our planet's ecology and environment have limited resources that must be managed carefully to support human growth. Sustainable development is the key to maintaining the delicate balance between human needs and environmental well-being. By adopting sustainable practices, we can ensure a healthier planet for future generations.

A TSDF has been developed at Bawana, Delhi, to manage hazardous waste. TSDF has been commissioned including the Incinerator, was commissioned in March 2022. This is a great milestone for safe and organised disposal of Hazardous Waste in NCT of Delhi.

DPCC monitors pollution levels and enforces regulations to control emissions and waste disposal. Educating the public about environmental issues and promoting sustainable practices. Working with government agencies, industries and communities to develop effective pollution control strategies.

By working together, we can create a cleaner, healthier environment for Delhi's residents.

From the desk of Member Secretary

(Dr. K S Jayachandran)

Member Secretary

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CHAPTER I

1. INTRODUCTION TO DPCC

The Central Pollution Control Board (CPCB) is empowered to perform the functions of the State Pollution Control Board for all Union Territories. However, Section 4(4) of the Water (Prevention and Control of Pollution) Act, 1974 and Section 6 of the Air (Prevention and Control of Pollution) Act, 1981 provides that CPCB may delegate all or any of its powers and functions of a State Board in a UT under the said Acts to such person or body of persons as the Central Government may specify. Accordingly, Delhi Pollution Control Committee (DPCC) has been delegated all the powers and functions of State Pollution Control Board in relation to NCT of Delhi by the Central Pollution Control Board (CPCB) vide Notification dated 15.03.1991. DPCC acts as a regulatory body for implementation of various Pollution Control Acts, Rules, Notifications, Court orders in NCT of Delhi. In order to decide the applications for consent and authorization in a transparent manner, various consent management committees consisting of members from reputed academic institutes and research organizations have been constituted.

DPCC has also been vested with statutory Powers, Functions and Duties under Section 5 of the Environment (Protection) Act, 1986 and Rules made there under.

1.1 ACTS



The Water (Prevention and Control of Pollution) Act, 1974.



The Air (Prevention and Control of Pollution) Act, 1981



The Environment (Protection) Act, 1986.

1.2 RULES

- ✚ Environment (Protection) Rules, 1986
- ✚ The Water (Prevention & Control of Pollution) Rules, 1975.
- ✚ The Air (Prevention & Control of Pollution) (Union Territories) Rules, 1983.
- ✚ The Bio- Medical Waste Management Rules, 2016
- ✚ E Waste (Management) Rules, 2016
- ✚ Hazardous and Other Wastes (Management & Transboundary Movement) Rules, 2016.
- ✚ Construction and Demolition Waste Management Rules, 2016
- ✚ The Plastic Waste Management Rules, 2016
- ✚ Solid Waste Management Rules , 2016
- ✚ The Manufacture, Storage and Import of Hazardous Chemical Rules, 1989
- ✚ Noise Pollution (Regulation and Control) Amendment Rules, 2000
- ✚ Batteries (Management and Handling) Rules, 2001
- ✚ The Ozone Depleting Substances (Regulation & Control) Rules, 2000.

1.3 CONSTITUTION OF DPCC

As per the notification dated 29th May, 2012 S.O. 1729 (E) the Central Pollution Control Board hereby delegates all the powers vested in the said Board under the Water (Prevention and Control of Pollution) Act, 1974 and Air (Prevention and Control of Pollution) Act, 1981 in respect of the Union Territory of Delhi (known as National Capital Territory of Delhi) to the following Committee ,as specified by the Central Government:

Table 1: DPCC Committee

1.	Secretary, Department of Environment, Govt. of National Capital Territory of Delhi.	Chairman
2.	Commissioner, Department of Transport, Govt. of National Capital Territory of Delhi.	Member
3.	Secretary, Department of Health & Family Welfare, Govt. of National Capital Territory of Delhi.	Member
4.	Secretary, Department of Urban Development, Govt. of National Capital Territory of Delhi.	Member

5.	Commissioner, Department of Industries, Govt. of National Capital Territory of Delhi.	Member
6.	Member Secretary, Central Pollution Control Board.	Member
7.	Advisor / Director, Control of Pollution Division, Ministry of Environment and Forest, New Delhi.	Member
8.	Medical Superintendent, All India Institute of Medical Science (AIIMS), New Delhi.	Member
9.	Director, School of Planning & Architecture, New Delhi.	Member
10.	Prof. S.K. Singh Professor & Head, Department of Environment Engineering, Delhi Technological University (DTU), Delhi.	Member
11.	Prof. A.K. Mittal, Professor, Department of Civil Engineering, Indian Institute of Technology (IIT), Delhi.	Member
12.	Dr. T.K. Joshi, Director, Centre for Occupational & Environmental Health (COEH), Maulana Azad Medical College (MAMC), New Delhi.	Member
13.	Dr. Ravi Aggarwal, Founder Director, Toxics Link Jangpura Extension, New Delhi.	Member
14.	Mrs. Bharti Chaturvedi, Director, Chintan Environment Research and Action Group, Siddhartha Enclave, New Delhi.	Member
15.	Director, Department of Environment, Govt. of National Capital Territory of Delhi.	Member
16.	Member Secretary, Delhi Pollution Control Committee.	Member Secretary

1.3.1 Area of Jurisdiction and Main Activities

-  All Industrial units causing Air/Water/Noise pollution or generating Hazardous Waste.
-  Dust pollution control from Construction projects/activities.
-  Hospitals, Clinics, Nursing Homes, Pathological Labs, etc. for the implementation of Bio-Medical Waste Management Rules, 2016 as amended to date.
-  Issuance of CTE & CTO to units under Section 25/26 of Water Act, 1974 and Section 21 of the Air Act, 1981.

- ✚ Issuance of Authorization to units under Hazardous and Other Wastes (Management and Transboundary Movement) Rules, Solid Waste Management Rules, Bio Medical Waste Management Rules, Plastic Waste Management Rules, Construction and Demolition Waste Management Rules etc.
- ✚ To promote cleaner fuels /approved fuels in various industrial units.
- ✚ Monitoring & Analysis of effluent, air emissions and noise levels on payment of required fees by the units such as industries, hotels, malls, etc.
- ✚ Monitoring the performance of STPs, CETPs, Power Plants etc.
- ✚ Ambient Air quality monitoring in different parts of Delhi.
- ✚ Surface (river, drains etc.) and ground water monitoring & analysis.
- ✚ Providing guidance to Small Scale Industries regarding prevention & control of pollution.
- ✚ Redressal of pollution related public complaints.
- ✚ Mass awareness programs to ensure public participation in preventing and controlling pollution.
- ✚ Providing subsidy to owner of Battery-Operated Vehicles.

1.4 Functions of DPCC

1.4.1 Following are the functions of DPCC as per section 17 of the Water (Prevention and Control of Pollution) Act, 1974:

- a) To plan a comprehensive program for the prevention, control or abatement of pollution of streams and wells in the State and to secure the execution thereof;
- b) To advise the State Government on any matter concerning the prevention, control or abatement of water pollution.
- c) To collect and disseminate information relating to water pollution and the prevention, control or abatement thereof;
- d) To encourage, conduct and participate in investigations and research relating to problems of water pollution and prevention, control or abatement of water pollution;
- e) To collaborate with the Central Board in organizing the training of person engaged or to be engaged in programmes relating to prevention, control or abatement of water pollution and to organizes education programmes relating thereto;

- f) To inspect sewage or trade effluents, works and plants for the treatment of sewage and trade effluents and to review plans, specifications or other data relating to plants set up for the treatment of water, works for the purification thereof and the system for the disposal of sewage or trade effluents or in connection with the grant of any consent are required by this Act;
- g) Lay down, modify or amend effluent standards for the sewage and trade-effluents and for the quality of receiving waters (not being water in an inter- State stream) resulting from the discharge of effluents and to classify waters of the State;
- h) To evolve economical and reliable methods of treatment of sewage and trade effluents, having regard to the peculiar conditions of soils, climate and water resources of different regions and more especially the prevailing flow characteristics of water in streams and wells which render it impossible to attain even the minimum degree of dilution;
- i) To evolve methods of utilization of sewage and suitable trade effluents in agriculture;
- j) To evolve efficient methods of disposal of sewage and trade effluents on land, as are necessary on account of the predominant conditions of scanty stream flows that do not provide for major part of the year the minimum degree of dilution;
- k) To lay down standards of treatment of sewage and trade effluents to be discharged into any particular stream taking into account the minimum fair-weather dilution available in that stream and the tolerance limits of pollution permissible in the water of the stream, after the discharge of such effluents;
- l) To make, vary or revoke any order-
 -  For the prevention, control or abatement of discharges of waste into streams or wells;
 -  Requiring any person concerned to construct new systems for the disposal of sewage and trade effluents or to modify, alter or extend any such existing system or to adopt such remedial measures as are necessary to prevent control or abate water pollution;
 - (i) To lay down effluent standards to be complied with by persons while causing discharge of sewage or sullage or both and to lay down, modify or amend effluent standards for the sewage and trade effluents.
 - (ii) To advise the State Government with respect to the location of any industry the carrying on of which is likely to pollute a stream or well;

(iii) To perform such other functions as may be prescribed or as may, from time to time be entrusted to it by the Central Board or the State Government.

m) The Board may establish or recognize a laboratory or laboratories to enable the Board to perform its functions under this section efficiently, including the analysis of samples of water from any stream or well or of samples of any sewage or trade effluents.

1.4.2 Following are the functions of DPCC as per section 17 of the Air (Prevention and Control of Pollution) Act, 1981:

- a) To plan a comprehensive programme for the prevention, control or abatement of air pollution and to secure the execution thereof;
- b) To advise the State Government on any matter concerning the prevention, control or abatement of air pollution;
- c) To collect and disseminate information relating to air pollution;
- d) To collaborate with the Central Board in organizing the training of persons engaged in programmes relating to prevention, control or abatement of air pollution and to organize mass-education programme relating thereto;
- e) To inspect air pollution control areas at such intervals as it may think necessary, assess the quality of air therein and take steps for the prevention, control or abatement of air pollution in such areas;
- f) To inspect air pollution control areas at such intervals as it may think necessary, assess the quality of air therein and take steps for the prevention, control or abatement of air pollution in such areas;
- g) To lay down, in consultation with the Central Board and having regard to the standards for the quality of air laid down by the Central Board and having regard to the standards for the quality of air laid down by the Central Board, standards for emission of air pollutants into the atmosphere from industrial plants and automobiles or for the discharge of any air pollutant into the atmosphere from any other source whatsoever not being a ship or an aircraft:
- h) Provided that different standards for emission may be laid down under this clause for different industrial plants having regard to the quantity and composition of emission of air pollutants into the atmosphere from such industrial plants;

- i) To advise the State Government with respect to the suitability of any premises or location for carrying on any industry which is likely to cause air pollution;
- j) To perform such other functions as may be prescribed or as may, from time to time, be entrusted to it by the Central Board or the State Government;
- k) To do such other things and to perform such other acts as it may think necessary for the proper discharge of its functions and generally for the purpose of carrying into effect the purposes of this Act.
- l) A State Board may establish or recognize a laboratory or laboratories to enable the State Board to perform its functions under this section efficiently.

CHAPTER II

2. ORGANISATIONAL STRUCTURE OF DPCC

2.1 Sr. Officers of DPCC

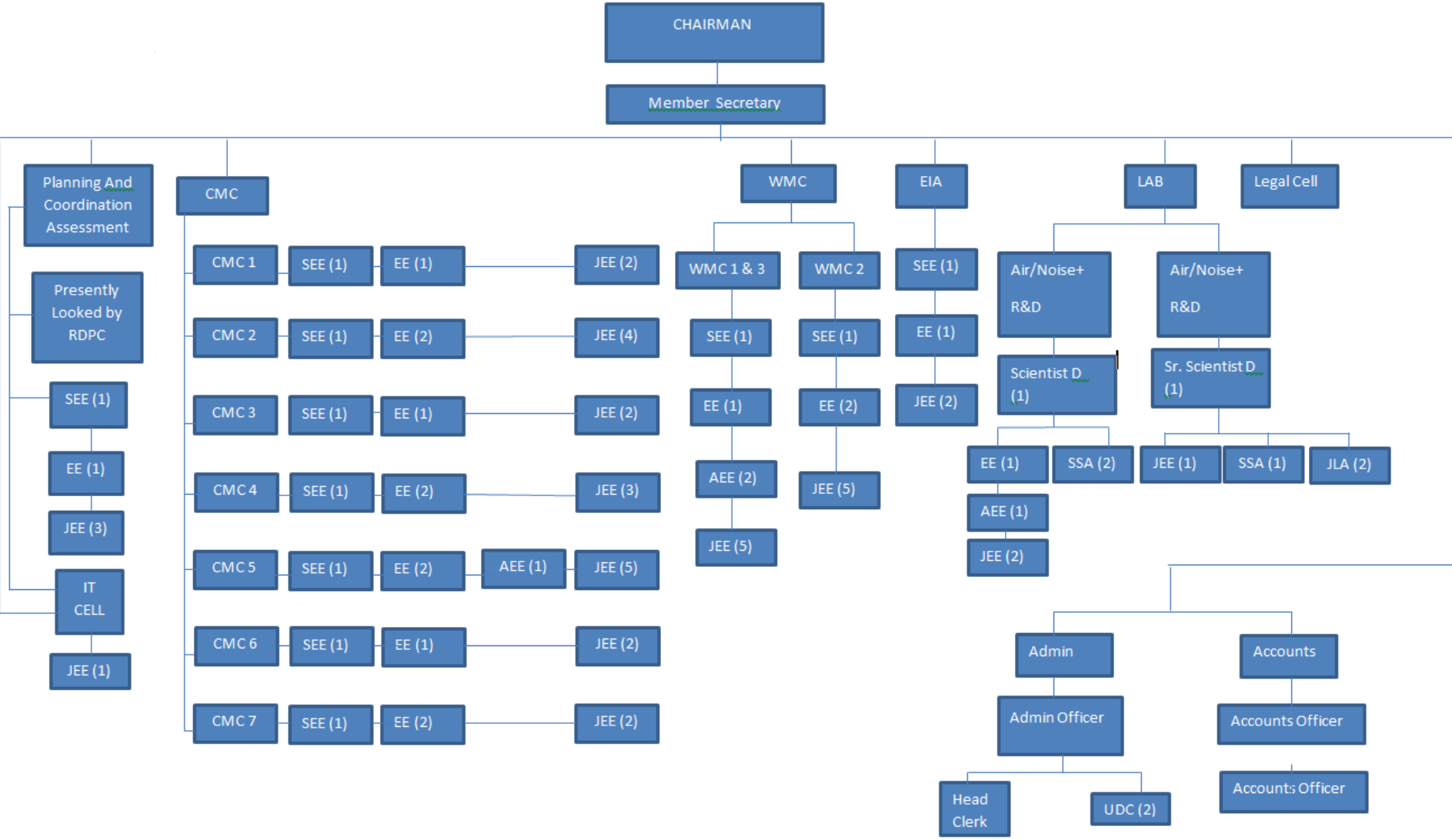
Table 2: Organizational structure of DPCC

S.No.	Name	Designation	Department	Area of Jurisdiction	Phone	Email Address	Address
1.	Sh. Sanjeev Khirwar	Chairperson	DPCC	All matters of DPCC	23392108	chdpcc@nic.in	6th floor, C wing, Delhi Secretariat, I P Estate, Delhi-110002
2.	Dr. K.S Jayachandran	Member Secretary	DPCC	All matters of DPCC	23860389, 23392306	ssenv@delhi.gov.in	6th floor, C wing, Delhi Secretariat, I P Estate, Delhi-110002
4.	Sh. Deepak Kumar Singh	Sr. Environmental Engineer	WMC-II	All matters related to CETPs, STPs, Water Treatment Plants, Solid Waste Management, Construction & Demolition Waste Management, Power Plants,	9717593512	dksingh.dpcc@nic.in	5th Floor, ISBT Building, Kashmere Gate, Delhi -06

				TSDf for Hazardous Waste			
5.	Sh. Pankaj Kapil	Sr. Environmental Engineer	WMC-I and EIA	All matters related to Health Care Establishments, All projects to whom Environmental clearances have been issued by MOEF & CC / SEIAA-Delhi, except those pertaining to Health Care Establishments and Power Plants/ Solid Waste Facilities.	9717593514	pankajkapil.dpcc @nic.in	5th Floor, ISBT Building, Kashmere Gate, Delhi -06
6.	Dr. M.P. George	Scientist C	Air Laboratory	All matters related to Air Lab (Air & Noise Monitoring).	9717593520	mohanpg.dpcc@ nic.in	5th Floor, ISBT Building, Kashmere Gate, Delhi -06

7.	Dr. Nandita Moitra	Scientist 'C'	Water Laboratory	All matters related to Water & Waste Water Monitoring	9717593521	namditamoitre.dpcc@gov.in	4th Floor, ISBT Building, Kashmere Gate, Delhi -06
8.	Sh. B. L. Chawla	Sr. Environmental Engineer	IT Cell, RDPC and SPIO under RTI Act	IT related work and all matters related to Planning and coordination and SPIO(RTI Act,2005).	9717593516	blchawla.dpcc@nic.in	5th Floor, ISBT Building, Kashmere Gate, Delhi -06
9.	Sh. P. S. Pankaj	Sr. Environmental Engineer	CMC-I	All matters of East, Shahadara and North East district and BOV related work	9717593517	pspankaj.dpcc@nic.in	1st floor, E Block, Vikas Bhawan-II, Civil Lines, Delhi-110054
10.	Smt. Ajeeta Dayal Aggarwal	Sr. Environmental Engineer	CMC-II and WMC-IV	All matters of South, South East & South West district and matters related to Covid-19 Health Care Establishments.	9717593511	ajeetaagarwal.dpcc@nic.in	2nd floor, C Block, Vikas Bhawan-II, Civil Lines, Delhi-110054

11.	Sh. Satender Kumar	Sr. Environmental Engineer	CMC III and CMC VII	All matters of North-West and Central district	9717593519	satender.dpcc@nic.in	4th Floor, ISBT Building, Kashmere Gate, Delhi -06
12.	Dr. B.M.S Reddy	Sr. Environmental Engineer	CMC-IV	All matters of New Delhi district. Matter related to E-Waste Rules, Battery Rules, Import of HW & Other wastes under HWM Rules and Slaughter House.	9717593543	bmsreddy.dpcc@nic.in	2nd floor, C Block, Vikas Bhawan-II, Civil Lines, Delhi-110054
13.	Sh. Md. Arif	Sr. Environmental Engineer	CMC V	All matters of North district	9717593510	arifmohd.dpcc@nic.in	1st floor, E Block, Vikas Bhawan-II, Civil Lines, Delhi-110054
14.	Dr. Anwar Ali Khan	Sr. Environmental Engineer	CMC VI and Climate Change	All matters of West district and Matter related to Climate Change.	8527411124	envanwar@gmail.com	2nd floor, C Block, Vikas Bhawan-II, Civil Lines, Delhi-110054



CHAPTER III

3. ACHEIVEMENTS

3.1 OCMMS Project

All the processing of Consents/ authorizations have been digitized and the authorizations are processed on DPCC OCMMS Portal.

To streamline the processing/ disposal of the Consent applications received under the Water Act, 1974 & Air Act, 1981 and Authorization under the Hazardous and Other Wastes (Management and Transboundary Movement) Rules, 2016, DPCC has been framing policies and issuing necessary office orders from time to time. Prior to 2017 the DPCC categorised industries in Green and Orange category. Consequent upon the directions issued by CPCB u/s 18 (1) (b) of Water and Air Act on 27.02.2017 regarding classification of industries and decisions taken by DPCC in the Board meeting

Industries in Delhi have been classified in Red/ Orange/ Green/ White category in 2017 in accordance with list of 637 activities is available on DPCC website further categorisation of new industrial activity is recommended by a committee for harmonisation of classification of industries and categorisation of activities which is available in a dynamic mode in public domain at DPCC website.

3.2 E-District OCMMS Integration (8 Online Services)

-  Issuance of the Consent certificate under Air & Water Act
-  Authorization under Bio-Medical Waste Management Rules, 2016
-  Authorization under the Hazardous Wastes Management Rules for import of Ferrous & non-ferrous scrap
-  Authorization under the Hazardous and Other Wastes (Management and Transboundary Movement) Rules, 2016
-  Authorization under Solid Waste Management Rules, 2016
-  Registration under Plastic Waste Management Rules, 2016
-  Authorization for refurbishes/ dismantler for E-waste
-  Authorization under Construction and Demolition Waste Management Rules, 2016

3.3 MHA-OCMMS Integration

- ✚ DPCC's OCMMS integration has been done with Unified Portal of MHA for licensing of Eating/ Lodging & Boarding Establishments in Delhi.
- ✚ This portal provides a Unified platform to applicant wherein business owners can register and apply for the license for establishing eating houses/ boarding house in Delhi. A Single license will contain basic clearance from all four authorities i.e. Pollution Control Board, Fire Services, Police and Municipal Authorities of Delhi.
- ✚ It simplifies and rationalizes the regulatory processes (registration and inspection processes).
- ✚ It avoid procedural delays in getting statutory clearances from various authorities
- ✚ It implements an Unified Licensing Procedure across various government authority i.e Municipal corporation, Fire department, Delhi police, DPCC, etc.
- ✚ It provides a common application form for getting clearance from Municipal corporation, Fire department, Delhi Police, DPCC, etc.
- ✚ It facilitates transparency, traceability and accountability in operations.

3.4 Green Delhi App

- ✚ Relaunch of Android and iOS App based Public Grievances portal related to air pollution.
- ✚ Relaunch of Official Web-Portal of Green Delhi App.

3.5 Green War Room

- ✚ Collection and Analysis of Data related to Winter Action Plan, Dust Drive, Environment Health Bulletin, etc.
- ✚ Monitoring Green Delhi App, Air Quality data & OLMS.
- ✚ Operated with 70 Green Marshal and 14 Vehicles in teams.

3.6 Ease of doing Business – 17 Compliance under Regulatory Compliance Burden:-

- ✚ Auto renewal with online payment for Green category units requiring consent under Water Act, 1974 and Air Act, 1981

- ✚ Self-Certification for Green category units requiring consent under Water Act, 1974 and Air Act, 1981
- ✚ Auto renewal with online payment for Orange category units requiring consent under Water Act, 1974 and Air Act, 1981
- ✚ Self-Certification for Orange category units requiring consent under Water Act, 1974 and Air Act, 1981
- ✚ Auto renewal with online payment for Authorization under Bio-Medical Waste Management Rules, 2016
- ✚ Filling of annual return under Bio-Medical Waste Management Rules, 2016.
- ✚ Auto renewal with online payment for Authorization under Plastic Waste Management Rules, 2016.
- ✚ Filling of annual return under Plastic Waste Management Rules, 2016.
- ✚ Self-Certification for Authorization under Plastic Waste Management Rules, 2016.
- ✚ Self-Certification for Authorization under E- Waste Management Rules, 2016.
- ✚ Auto renewal with online payment for Authorization under E- Waste Management Rules, 2016
- ✚ Increase periodicity of renewal for Authorization under E- Waste Management Rules, 2016.
- ✚ Filling of annual return under E- Waste Management Rules, 2016.
- ✚ Filling of annual return under Hazardous Wastes Management Rules for import of Ferrous & Non-ferrous scrap.
- ✚ Filling of annual return under Hazardous and Other Waste (Management and Transboundary) Rules, 2016.
- ✚ Filling of annual return under Solid Waste Management Rules, 2016.
- ✚ Filling of annual return under Construction and Demolition Waste Management Rules, 2016.

3.7 Development of Common Hazardous Waste, Treatment, Storage & Disposal Facility (TSDF) at Bawana

Common Hazardous Waste, Treatment, Storage & Disposal Facility (TSDF) has been developed at Bawana in Delhi. Consent to Establish under the Air & Water Acts was issued by DPCC to the Project Proponent (M/s Tamil Nadu Waste Management Limited) on 31.12.2020. Landfill (SLF)

of TSDF commissioned in Sept, 2021 and whole facility including Incinerator commissioned in March, 2022. Consent to Operate under the Air & Water Acts and Authorization under the Hazardous and Other Wastes (Management & Transboundary Movement) Rules, 2016, issued the operator of TSDF on 04.03.2022 for Secured Land Fill (SLF), Incinerator and Associated Activities.

3.8 Commissioning of New C & D Waste Processing Facility at Ranikhera

A New C&D Waste Processing Facility of 1000 TPD at Ranikhera commissioned in October, 2021. Consent to operate and Authorization under the C & D Waste Management Rules, 2016 were issued by DPCC to M/s Indo Enviro Integrated Solutions Limited. After commissioning of this C&D Waste Processing Facility total capacity of all the 5 C&D Waste Processing Facilities in Delhi increased from 4150 TPD in 2020 – 2021 to 5150 TPD in 2021- 2022.

- ✚ Enhancement of treatment capacity of STPs from 535 MGD in 2020-2021 to 545 MGD in year 2021-2022.
- ✚ New Coronation Pillar STP of 70 MGD completed & Commissioned on 15.03. 2022.
- ✚ Inlet Standards for CETP prescribed by DPCC and order issued in this regard on 02.03.2022.
- ✚ Performance improvement of CETPs

In Feb, 2021 only two CETPs were meeting the prescribed standards whereas in March, 2022; 08 CETPs were meeting the prescribed standards.

3.9 Improvements w.r.t Solid Waste Management in Delhi

Regular meetings of the Chief Secretary, GNCTD, coordinated by DPCC resulted in :

- ✚ Improvement in Segregation of Waste at Source
- ✚ Enhancement of Treatment & Processing Capacity of Municipal Solid Waste (4893 TPD in March, 2022)
- ✚ Improvement in Bio-mining of Legacy Waste at 3 Dumpsites at Ghazipur, Bhalaswa & Okhla (Processed 45.65 Lakh Ton as on 31.03.2022).

- ✚ Decentralized Composter Plants capacity increased from 15 TPD (15 Nos of 1 TPD each) in March, 2021 to 20 TPD (20 Nos of 1 TPD each) in March, 2022.
- ✚ Reduction in fire incidents.

3.10 Consent Management

- ✚ Total 11349 consents have been granted.

During the year 2021-22, total 11349 number of consent applications received. Out of total 9404 consents were granted.

3.11 Smog Tower

Hon'ble Supreme Court of India in Writ Petition (Civil) 13029/1985 titled as M. C. Mehta V/s Union of India & Ors. dated 13.11.2019 has directed Delhi Govt. to put up concrete proposal for feasibility of Smog Towers in Delhi to contain Smog problem. In order to comply with the orders of Hon'ble Court DPCC roped in CPCB, IIT Bombay, IIT Delhi, Department of Science and Technology and started consultations and a High Level Committee was constituted to suggest the feasibility of smog towers in Delhi. Urgent meeting was called and experts were requested to submit report. Report was submitted and it was decided to set up one smog tower on experimental basis and based on the successful performance requirement of other smog tower will be assessed. Affidavit was filed by Delhi Govt. on 5.12.2019 to set up one smog tower on experimental basis. Hon'ble Supreme Court in its judgement on 13.1.2020 asked Govt. of India as well as Delhi Govt. to set up 2 Smog Towers in Delhi. One by GOI and one by GNCTD. Hon'ble Supreme Court of India vide order dated 31.08.2020 had further directed that the project be positively completed within 10 months, i.e. by June 14,2021 and that any violation on any ground whatsoever shall be treated as contempt of the order passed by the Hon'ble Court. The Delhi Pollution Control Committee on behalf of GNCTD entered into agreement with Tata Projects Limited, IIT Bombay by involving them as Project Executing agency and technical advisor respectively and NBCC was taken in the Project as Management Consultant for installation of Smog Tower (An Air Purification Device) at Old NDMC Nursery, Baba Kharag Singh Marg, Cannaught Place, New Delhi. Smog Tower installed and Pilot study under appraisal of Department of Environment, GNCTD.

3.12 Important Court Cases Disposal

In a very important matter pending in NGT in OA no 56 of 2013: Satish Kumar vs Union of India and 57 of 2013, Mahavir Singh, wherein, Chief Secretary, GNCTD was issued strict directions and even heavy penalty was imposed on Delhi Govt. matter was regarding running of many plastic industries in Non-conforming areas in West District. Following rigorous actions were taken and ATR's were filed time to time to the satisfaction of NGT and case was later disposed of by NGT.

1. Teams were constituted and Joint inspection drive were conducted by the team of Revenue, DPCC, MCD, DISCOM and Police and app. 240 units were closed down and EDC was imposed on them.
2. A study was conducted by Jamia Millia Islamia for assessment of Ground water quality due to operation of such units. No contamination was observed in report.
3. Detailed Action Plan for EDC utilization was prepared and submitted to NGT.
4. After day night persuasion with SDMC, the cumulative amount of construction and demolition waste of 163275 MT dumped on road sides and vacant plots and drains was cleared from 08.11.2019 upto 12.02.2020 in Mundka and Tikri Area. During the same period garbage and plastic waste of 97596 MT has also been cleared, potholes of 6756 sq. meter of space were filled up and 226 km of road stretch have been paved in West District.
5. Coordinated, Step 2 and Step 3 drive conducted by North and South MCD for closing down illegal units operating in non-conforming areas in Delhi.

In other important case in OA no. 1008/2018 Deepak Dutta vs UOI at NGT following key actions were supervised:

1. Joint drive of DPCC and Revenue, DJB, Police and SDMC was conducted to check the compliance of environmental norms, parking norms, ground water extraction in 23 big banquet halls operating at Najafgarh Road in West District. All the banquet halls were either operating without DPCC consent or violating the prescribed norms. EDC was imposed on all 23 Banquet halls and closure directions to Banquet halls without DPCC consent. Consequent to these actions all Banquet halls obtained DPCC consent and complied all environmental norms.

2. After detailed study of existing the (Permission of Halls) Regulations, 2010 of DDA the suggestions with respect to incorporation of environmental regulations and parking policy was submitted to NGT. The NGT agreed to modifications suggested by DPCC and directed DDA to incorporate the suggestion of DPCC in revised Banquet Hall regulations and Master Plan.

Enforcement

DPCC officials regularly monitoring and doing surveillance on polluting activities in NCT of Delhi and ensuring implementation of various Environmental Acts and Rules and inspection is conducted wherever it is necessary.

Other Achievements

- ✚ That due to regular vigil and surveillance through inspections in early morning/ late night/ weekend's, S. S. Pickling units could not operate in Wazipur Industrial Area.
- ✚ Directions were issued to all Air polluting units using unapproved fuel to convert to the PNG. PNG line was laid and was provided by M/s IGL in all the industrial areas wherever PNG is required. Due to coordinated efforts of DPCC, 1691 industrial units shifted on PNG and 99 industrial units the came in to the process for conversion to PNG. Delhi is leading State where industrial units had converted to the PNG, the efforts of DPCC in conversion of units for usage of PNG were appreciated by CPCB and at various other forums.

CHAPTER IV

4. GREEN WAR ROOM AND GREEN DELHI APP

The Green War Room (GWR) is a 24x7 pollution monitoring and mitigation initiative that is situated at Delhi Secretariat. The GWR monitors complaints filed by the citizens of Delhi through the Green Delhi App. The Green Delhi App is a tool, developed by the Delhi Pollution Control Committee (DPCC) and NIC, which allows citizens to identify and report dispersed sources of air and noise pollution in the National Capital. The App then assigns the complaints to the concerned department(s) for resolution. The GWR facilitates the process of resolution for each complaint raised on the Green Delhi App.

For efficient functioning of the GWR, the following six stakeholders have been identified:

1. **Dept. of Environment:** The department has been given charge to manage overall operations of the GWR.
2. **Delhi Pollution Control Committee:** Senior Environmental Engineer (S.E.E) and Environmental Engineer (E.E), Individuals employed under DPCC given charge to take action for timely disposal of public grievances submitted through the Green Delhi App.
3. **DPCC Trainees:** A team of individuals given responsibility to carry out the day-to-day operations of the GWR.
4. **Green Marshals:** A group of Civil Defense volunteers given responsibility to assist in quick on-ground inspection and resolution of complaints. To ease operations, the Green Marshals have been grouped into two categories:
 - a. **Green Marshal Field Teams:** A team of civil defense volunteers responsible for carrying out inspections and on-ground verification.
 - b. **Green Marshal Coordination Team:** A team of Green Marshals has been given the responsibility to assist coordination between the GWR and Green Marshal Field Teams.
5. **Nodal Officers from Urban Local Bodies (Departments):** Officers given charge to manage timely resolution of complaints within their departments.
6. **Green Delhi App IT Team (DPCC):** A team of IT professionals given responsibility to manage the Green Delhi App dashboard and other IT requirements of the GWR.

Each stakeholder of the GWR would be provided with a Login ID and password to access the dashboard platform through the mobile app or desktop website.

The key responsibilities of each stakeholder is detailed below-

4.1 In-charge:

The In-charge holds overall responsibility for the efficient running of the GWR. They are responsible for all outputs and will be the point of contact for all functions in the GWR. Sh. B.L. Chawla, SEE (RDPC) worked as incharge of GWR.

4.2 DPCC Trainees:

There were 14 DPCC Trainees dedicated to running the GWR 24x7. The Trainees performed the core of the operations at the Green War Room. The primary function of the Trainees is to guide each complaint raised on the Green Delhi App to resolution. To facilitate this, each trainee was allocated a department(s) and made responsible for Contact details of nodal officers from these department(s) to be provided to the DPCC Trainees.

To ease the coordination between DPCC Trainees, department Nodal Officers and the Green Marshals, the Trainees communicate over voice call or WhatsApp.

Their functions are as follows:

- i. To communicate with Nodal Officers of the departments.
- ii. To coordinate with Green Marshals for action, inspection and verification of resolution
- iii. To verify the correctness of details in each complaint raised using the Green Delhi App.

Verification process after filtration:

a. Process to verify for resolution of resolved complaints:

- i. Trainees verify resolution of the complaint with help of the resolved photo' captured and uploaded by the concerned Nodal Officers.
- ii. If the trainee finds that the complaint has been satisfactorily resolved in the 'resolved photo' provided by the concerned official, the complaint is accepted as resolved and the trainee need not do anything further.
- iii. If the trainee finds that the complaint has been resolved unsatisfactorily or the resolved photo is unclear:

1. The trainee will use the Green Delhi App dashboard and share a list of similar complaints along with the respective complaint ID and contact list of responsible nodal officers with the Green Marshal Coordination Team.
 2. The Green Marshal Coordination team will direct a Green Marshal Field Team to physically verify the resolution status of the complaint and report back.
- iv. Post inspection by the Green Marshal Field Team, if the complaint is found to be partially resolved or unresolved basis the communication received, the DPCC trainee reopen the complaint and follow up on resolution with the responsible nodal officer on the same day.
1. For this purpose, the GWR share a reporting template with the Green Marshals.
 2. Basis the reporting template, DPCC Trainees ensure that all complaints which have not been resolved by the end of day are reopened.

b. Process to verify details of pending complaints:

- i. The Trainees use the Green Delhi App dashboard to check for the correctness of the following details:
 1. Selected Department.
 2. Selected Offence.
 3. Tagged Geo-location.
 4. Proof of issue along with the comment.
- ii. In case the complainant has selected the 'Don't know/Not listed' option, selected the incorrect department or selected the incorrect offence, the trainee has two options:
 1. If the trainee knows the correct department, offence category, Transfer the complaint to the correct department/ nodal officer and Contact the nodal officer of the department via voice call/ WhatsApp. Share the complaint ID and apprise them of the issue on WhatsApp. If there is no issue in the correctness of the above-mentioned details, the trainee need not do anything further.
 2. In case the trainee does not know the correct department, offence category, consult the In-charge.
 3. In case the trainee finds that the registered complaint does not relate to pollution or does not come under the ambit of the Green Delhi App:

c. Process to verify overdue complaints:

- i. Compile and share a list of overdue complaints with the responsible nodal officers from the concerned department.
- ii. The Trainees will verbally communicate with the nodal officer and ensure immediate resolution of the complaint.

4.3 Green Marshals

The Green Marshals are a team of 70 civil defence volunteers that assist the GWR in on-ground inspection, complaint registration and verification of resolved complaints. There are 14 teams of Green Marshalls deputed at the district level. They shall be under the overall coordination of the GWR. They shall attend to the daily and emergency tasks forwarded to them through the GWR as explained in the section of operating procedure.

For the purpose of the GWR, 14 teams, each consisting of 5 Green Marshals. A team of 11 Green Marshals operates out of the GWR. Their purpose is to assist coordination between the DPCC Trainees and Green Marshal Field Teams inspecting on ground via vehicles assigned to them. Their prime functions are to:

- i. Report any serious polluting activities to the GWR.
- ii. Assist the GWR in verification of resolved complaints.
- iii. Assist the GWR in monitoring situation on ground in case of emergencies.

Operating Procedure:

- i. Report any serious polluting activities to the GWR.
 1. Green Marshals will carefully survey the areas and report any serious polluting activities along with location to the GWR via WhatsApp or voice call in real- time.
 2. The Green Marshals will use the Green Delhi App to register such complaints only upon receiving specific instruction from the DPCC Trainees.
- ii. Assist the GWR in verification of resolved issues:
 1. Upon receiving a list of resolved issues from the Green Marshal Coordination team, a Green Marshal Field Team will physically inspect the area.
 2. Upon reaching the area, the Green Marshal Field Team will capture a picture

of the issue and share it with the Green Marshal Coordination Team or DPCC Trainees via WhatsApp.

- iii. Assist the GWR in monitoring situation on ground in case of emergencies:
 1. In case of any emergencies, the nearest Green Marshal Field Team will reach the location of the incident.
 2. The Green Marshal Field Team will update the Green Marshal Coordination team hourly regarding the on-ground situation and action steps being taken.
 3. The Green Marshal Coordination team will alert all relevant departments and nodal officers to direct their efforts towards resolution of the emergency situation.
- iv. Daily Report of the Green Marshalls
 1. A specified 20 number of complaints would be forwarded to the Green Marshalls on the daily basis through the Green War Room.
 2. The Green Marshalls shall send a daily report to the Green War Room in the specified format.
 3. A consolidated report of Green Marshalls shall be prepared on a daily basis in the Green War Room with the help of the Green Marshalls Coordination team.

4.4 DPCC S.E.Es and E.Es

S.E.E's and E.E's from DPCC will be involved in the working of the GWR when actions need to be taken on complaints that are overdue beyond certain time. The Engineers will operate based on permissions provided to them by either the In-charge.

4.5 Nodal Officers from Urban Local Bodies (Departments)

Nodal Officers are the key people who are responsible for resolving issues rose using the Green Delhi App that concern their department. Their prime function is to:

- i. Resolve complaints rose on the Green Delhi App if they are the responsible official.
- ii. Correctly assign the complaint to the right official in their department.
- iii. Correctly assign the complaint to the right official in a different agency department within 24 hours if it does not pertain to their department.

Operating Procedure:

- i. Resolve complaints raised on the Green Delhi App if they are the responsible official:
 1. The Nodal Officer will take necessary actions to resolve the complaint raised on the Green Delhi App post receiving the complaint list from the DPCC Trainee.
 2. Upon resolution, the Nodal Officer will update the complaint with a 'resolved photo' and add any comment deemed necessary by the Green Delhi App dashboard.
- ii. Correctly assign the complaint to the right official in their own department:
 1. Upon receiving the report with complaints concerning their department, the Nodal Officer will forward or transfer the complaint to the responsible officer within their department.
 2. The Nodal Officer will be accessible to the DPCC trainee by either voice call or WhatsApp.
- iii. Correctly transfer the complaint to the concerned other department if they are not the concerned agency:
 1. Upon receiving the report with complaints concerning their department, the Nodal Officer will forward or transfer any complaint not concerning their department to the responsible officer within another agency's department using their personal judgement.

4.6 DPCC IT Team

The DPCC IT team is responsible for the functioning of the Green Delhi App dashboard. They assist in any IT related issues that hinder the functioning of the GWR. Their functions are to:

- i. Assist the In-charge to conduct training sessions on application process flow and functioning of the Green Delhi App dashboard with the other GWR stakeholders.
- ii. Maintain an updated database of all GWR stakeholders. The IT team will maintain a database of all the mapped individuals in the GWR. They will update the resolution status of respective complaints in order to keep a track of any progress or shortfalls. They will generate any specific report that is needed by the GWR.

4.7 Green Delhi App

Green Delhi app has been developed for information, awareness and redressal of grievances of the citizens at single platform. Green Delhi App has been relaunched by Hon'ble Environment Minister Govt. of NCT of Delhi on 5th Oct, 2021 for redressal of grievances of citizens of Delhi with regard to various offences related to pollution. Green War Room is a 24X7 pollution monitoring and mitigation initiative setup at 7th level of Delhi Secretariat for monitoring the grievance uploaded on Green Delhi App. The app assigns the complaints to the concerned department(s) for resolution. Green Delhi App is aimed to resolve grievances related to Air and Noise pollution on priority by the 28 Agencies of Delhi. The GWR facilitates the process of resolution for each complaint raised on the Green Delhi App.

42,512 Complaints have been received on Green Delhi App (as on 31.03.2022) out of which 37,787 have been resolved by 28 Agencies and only 11.11% of the complaints are pending.

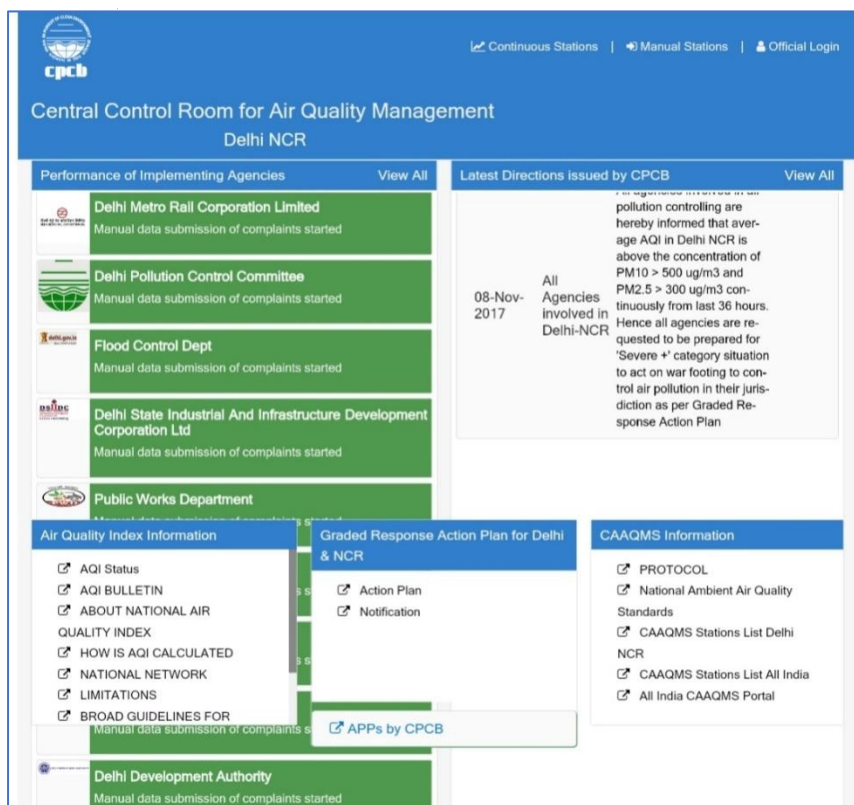
For efficient functioning of the GWR, the following six stakeholders are responsible:

1. In charge GWR: Responsible to carry out overall operation of the GWR.
2. DPCC Trainees: Responsible to carry out day to day operation of GWR.
3. Nodal officers of Agencies: Responsible for timely resolution of complaints within their departments.
4. Green Marshals: Group of Civil Defence volunteers have been deputed with the responsibility to assist in quick on ground inspection and verification & resolution of complaints. The Green Marshall have been grouped into two categories:
 - a. Green Marshall Field Team: Responsible for carrying out inspection and on ground verification.
 - b. Green Marshal Coordination Team: Responsible to assist coordination between GWR and Green Marshall Field Team.
5. DPCC Engineers: Cell In charge(s) of DPCC are responsible for taking action on the complaints including imposing EDC on the agencies responsible for redressal of complaints, in case of default.
6. Green Delhi App IT Team (DPCC): Responsible to manage Green Delhi App Dashboard and other IT requirements of the GWR

CHAPTER V

5. PUBLIC GRIEVANCE REDRESSAL

5.1 SAMEER



The SAMEER App, developed by the Central Pollution Control Board (CPCB), provides information of air quality for more than 100 cities across India.

The app is available on the Google Play Store and Apple App Store for both Android and iOS users, the Sameer India's AQI application can be conveniently

downloaded across personal mobile phones.

The app boasts of an intuitive UI, representing the listed cities in a colour-coded format based on their AQI levels.

Status of Complaints for the year 2021-22 is as follows:

-  Number of SAMEER App Complaint Redressal received: 2194
-  Number of SAMEER App Complaint Redressal pertains to DPCC: 26
-  Number of SAMEER App Complaint Redressal disposed by DPCC: 19

5.2 PGMS (Public Grievance Monitoring System)

Public Grievance Monitoring System
 राष्ट्रीय राजधानी क्षेत्र, दिल्ली सरकार
 Government of NCT of Delhi

To Reset the Password, please send email on: pgms.delhi@gov.in

Department Log-In

Enter a valid Username and Password. Then click the "Sign In" button to access the application.

Username :

Password :

Visual Code :

Enter Visual Code :

[Home]

You are Visitor No.: 5824819

Disclaimer: Designed, Developed and Hosted by National Informatics Centre (NIC)
 The Nodal Department of PGMS is AR Department and content of grievances are owned by the concerned Department
 NIC is not Responsible for any Inaccuracy in the Data of this Site

Status of Complaints for the year 2021-22 is as follows:

Total Complaints received: 187

Total complaints resolved: 186

5.3 LG LISTENING (Listening Post of Lieutenant Governor)

Listening Post of Lieutenant Governor, Delhi

Departmental User Sign-In

UserName:

Password:

Visual Code :

Enter Visual Code:

[Home]

You are Visitor No.: 1886069

Disclaimer: Designed, Developed and Hosted by National Informatics Centre (NIC)
 Contents Owned and Maintained by Listening Post, Lieutenant Governor's Secretariat Delhi
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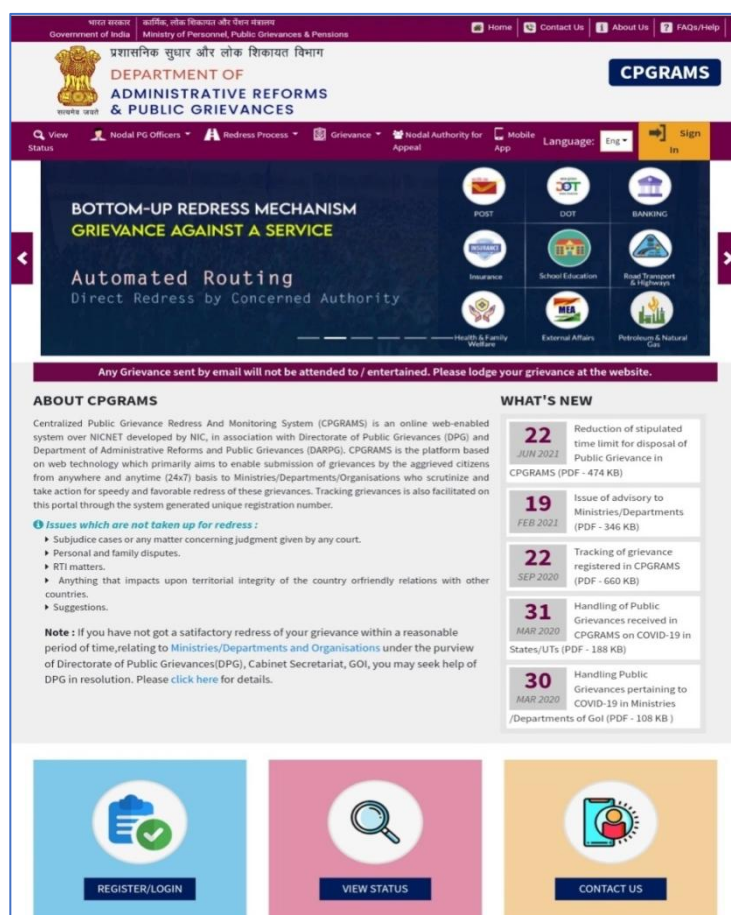
Once a complaint is received in LG's Listening Post, the same is immediately registered on website (www.listeningpostdelhilg.in) and automatically a Grievance No. is given to the complainant on his/her mobile phone through SMS. Simultaneously, the complaint is forwarded to the Nodal officers of the department(s) concerned for taking necessary action as per rules and regulations of the department(s) concerned.

LG Listening is committed to facilitate genuine redressal to the grievances. The Scope of function of the portal includes Public Health, Blockage of sewer, Water Logging, Unclean Dhalao, Fire Hazard, Electricity fault, Water supply, Accidents, Building collapse, Road Repair, park maintenance, and Unauthorized construction.

Status of Complaints for the year 2021-22 is as follows:

- Total Complaints received: 24
- Total complaints resolved: 24

5.4 CPGRAMS (Centralized Public Grievance Redress and Monitoring System)



Centralized Public Grievance Redress and Monitoring System (CPGRAMS) is an online web-enabled system over NICNET developed by NIC, in association with Directorate of Public Grievances (DPG) and Department of Administrative Reforms and Public Grievances (DARPG). CPGRAMS is the platform based on web technology which primarily aims to enable submission of grievances by the aggrieved

citizens from anywhere and anytime (24x7) basis to Ministries/ Departments/ Organisations who scrutinize and take action for speedy and favourable redress of these grievances. Tracking grievances is also facilitated on this portal through the system generated unique registration number.

Status of Complains for the year 2021-22 is as follows:

- Total Complaints received: 29
- Total complaints resolved: 22

CHAPTER VI

6. WATER POLLUTION

6.1 The River Yamuna

Yamuna, a major tributary of river Ganga, is a sacred river and supports the livelihoods of millions of people in its basin states. In order to fulfil the growing needs of drinking water and irrigation, several large dams and barrages have been built which divert large volumes of water from the river as it runs its course through the states of Uttarakhand, Haryana, the National Capital Territory of Delhi and Uttar Pradesh. In Delhi, the river is virtually reduced to a trickle and remains completely dry in stretches for almost nine months of the year. The stretch of the River Yamuna from Wazirabad (Downside of Wazirabad Barrage) to Asgarpur Village (after Okhla Barrage) in Delhi is highly polluted due to flow of untreated sewage from unauthorized colonies and the discharge of inadequately treated industrial effluents.

- ✚ There is about 48 KM Stretch of river Yamuna in Delhi from Palla (Delhi-Haryana border) to Badarpur (Delhi-Haryana border).
- ✚ 22 KM Stretch from Wazirabad (Downside of Wazirabad Barrage) to Asgarpur Village (after Okhla Barrage), which is less than 2% of the total river length, accounts for about 76% of the pollution load in the river.
- ✚ During the dry season, spreading over nearly nine months of the year, the river has no fresh water downstream of Wazirabad Barrage and the only flow available is sewage (both treated and untreated).
- ✚ 22 Drains outfalling into river Yamuna in Delhi with discharge of about 3411.6 MLD (about 750 MGD) of waste water into the River Yamuna including 2056.32 MLD (452.34 MGD) waste water coming into Najafgarh Drain from Haryana and 475.2 MLD (105 MGD) coming into Shahdara Drain from Ghaziabad.
- ✚ 10 Cumecs of Water is released by the State of Haryana at Hathanikund during lean season. However, most of it evaporates or percolates before it reaches Wazirabad during the lean season and therefore it is highly inadequate to meet the dilution requirement to achieve the desired water quality of $BOD < 3 \text{ mg/l}$ & $DO > 5 \text{ mg/l}$.

6.2 Water Quality of River Yamuna:

-  Water quality of river Yamuna is monitored by DPCC at 8 Locations on monthly basis.
-  Water Quality of 27 drains including 22 drains out falling into river Yamuna in Delhi and Sahibabad Drain & Indrapuri Drain coming from UP on is monitored on monthly basis.

S. No.	Name of Drain Monitored by DPCC LAB
1	Najafgarh Drain
2	Metcalf House Drain
3	Khyber Pass Drain
4	Sweeper Colony Drain
5	Magazine Road Drain
6	ISBT Drain
7	Tonga Stand Drain
8	Civil Mill Drain
9	Sen Nursing Home Drain
10	Drain No. 14
11	Power House Drain
12	Indrapuri Drain
13	Sonia Vihar Drain
14	Kailash Nagar Drain
15	Shastri Park Drain
16	Barapulla Drain
17	Maharani Bagh Drain
18	Old Agra Canal Drain
19	Jait Pur Drain
20	Sarita Vihar Pool
21	Tuglakabad Drain
22	Drain Near LPG Bottling Plant
23	Drain Near Sarita Vihar Bridge (Mathura Road)
24	Shahdara Drain
25	Sahibabad Drain

26	Molar Band Drain
27	Abul Fazal Drain

-  DPCC has taken over the Online Monitoring System at Wazirabad and Okhla from Central Pollution Control Board w.e.f. 15.02.2019.
-  Online Monitoring System for measuring the concentration of Ammonia in river Yamuna at Palla has been installed by DPCC.

6.3 River Yamuna Water Quality Monitoring by DPCC

The water quality of river Yamuna is monitored by DPCC at 8 locations for the parameters pH, BOD, COD, DO & faecal Coliform on monthly basis. Monthly reports on the water quality of river Yamuna are being placed on the website of DPCC and link has been given to CPCB.

S.No.	Water Quality Monitoring Locations
1	Palla
2	Wazirabad
3	ISBT Bridge
4	ITO Bridge
5	Nizamuddin Bridge
6	Okhla Barrage
7	Agra Canal at Okhla Barrage
8	River Yamuna at Asgarpur (After confluence of Shahdara and Tuglakabad Drains)

DPCC has taken over the Online Monitoring System at Wazirabad and Okhla from Central Pollution Control Board w.e.f. 15.02.2019 and Delhi Jal Board have been given link to receive the data. Online Monitoring System for measuring the concentration of Ammonia in river Yamuna at Palla has been installed by DPCC and data is transferred to DJB, DPCC & CPCB.

Water quality monitoring reports of river Yamuna indicate that the water quality parameters are meeting the Water Quality criteria of "C" class, at Palla only, which is upstream of Wazirabad Barrage.

6.4 Annual Average Water Quality of River Yamuna

The highest annual average of DO is 8.6 mg/l at Palla. The annual average of BOD has ranged from 6.28 mg/l at Palla to 60.5 mg/l at D/S Okhla Barrage (after meeting Shahdara Drain). The water quality standards for DO and BOD as per CPCB norms are 5 mg/l and 3 mg/l respectively for class "C" of river water. The water quality monitoring results in the Delhi stretch clearly indicates river water is grossly polluted.

Annual Average Water Quality of River Yamuna at 8 locations being monitored by DPCC laboratory on monthly basis for the period of April 2021–March 2022 is given in following Table:

Annual average water quality of river Yamuna at 8 locations: (April 2021–March 2022)

S.No.	Locations	pH (mg/l)	COD (mg/l)	BOD (mg/l)	DO (mg/l)
	Water Quality Criteria	6.5-8.5	-	3 mg/l or Less	5mg/l or more
1	Palla	7.66	32.09	6.28	8.60
2	Wazirabad	7.50	57.00	7.74	5.14
3	ISBT Bridge	6.97	144.60	37.90	1.36
4	ITO Bridge	7.33	175.20	48.80	1.20
5	Nizammudin Bridge	7.40	128.00	38.73	2.55
6	Okhla Barrage	7.62	238.50	60.50	2.20
7	Agra Canal at Okhla Barrage	7.37	163.20	42.20	1.6
8	River Yamuna at Asgarpur	7.30	196.67	55.67	1.40

Annual Average Water Quality of Drains:

DPCC Laboratory is carrying out water quality monitoring of the 27 major drains including 2 Drains (Sahibabad Drain & Indrapuri Drain) coming from UP, on monthly basis before their outfall into river Yamuna. Annual Average Water Quality of Drains out falling into river Yamuna in Delhi for the period of April, 2021 to March, 2022 is given in following Table:

Annual average water quality of drains out falling into river Yamuna in Delhi (April 2021– March 2022):

S.No.	Drain	pH	TSS	COD	BOD
	Water Quality Criteria	5.5-9.0	100(mg/l)	250(mg/l)	30(mg/l)
1	Najafgarh Drain	7.3	173.27	311.27	73.45
2	Metcalf House Drain	7.14	79.33	109.33	29.33
3	Khyber Pass Drain	7.16	94.89	177.78	45.33
4	Sweeper Colony Drain	7.26	248.22	376.00	98.78
5	Magazine Road Drain	7.17	137.00	247.67	58.17
6	ISBT Drain	7.20	128.91	222.55	56.55
7	Tonga Stand Drain	7.24	82.40	157.30	41.40
8	Civil Mill Drain	7.18	129.09	173.82	47.91
9	Power House Drain	7.28	160.36	294.73	75.09
10	Sen Nursing Home Drain	7.16	196.73	333.45	86.73
11	Drain No.14	7.31	90.55	150.36	39.00
12	Barapulla Drain	7.33	110.73	238.18	54.27
13	Maharani Bagh Drain	7.47	101.82	250.00	58.27
14	Tuglakabad Drain	7.52	100.36	200.73	44.73
15	Drain Near LPG Bottling Plant	3.54	68.00	213.00	42.00
16	Drain Near Sarita Vihar Bridge	7.60	118.67	234.67	54.67

17	Shahdara Drain	7.44	161.45	354.64	92.82
18	Sahibabad Drain	7.52	191.36	351.82	94.73
19	Indrapuri Drain	7.34	189.64	336.00	85.27
20	Sonia Vihar Drain	7.40	148.67	249.33	65.33
21	Kailash Nagar Drain	7.28	170.91	257.45	73.09
22	Shastri Park Drain	7.19	133.64	230.73	64.00
23	Old Agra Canal	7.57	111.64	244.82	59.00
24	Jaitpur Drain	7.51	112.91	214.18	54.09
25	Sarita Vihar Pool	7.51	92.00	189.55	45.27
26	Molarband Drain	7.38	159.82	311.73	81.27
27	Abul Fazal Drain	7.42	126.91	249.09	56.45

Water quality monitoring results of the drains indicate that most of the drains are not meeting the standards with respect to Biochemical Oxygen Demand(BOD), Chemical Oxygen Demand (COD) and Total Suspended Solids (TSS).

Annual Average Treated Water Quality of STPs of DJB

All the operational Sewage Treatment Plants (STPs) of Delhi Jal Board in Delhi are being monitored by DPCC Laboratory on monthly basis and Analysis Reports are placed on the website of DPCC and also conveyed to the Delhi Jal Board for rectification of the deficiencies to meet the prescribed standards.

Annual Average Treated Water Quality of STPs for the period of April, 2021 to March, 2022 is given in Table below:

S. No.	Name of STP	pH (6.5-9)	TSS (mg/l)	BOD (mg/l)	COD (mg/l)	Oil & Grease (mg/l)	Ammonical Nitrogen (mg/l)	Dissolved Phosphate (mg/l)
1	Coronation Pillar Ph-I, IISTP (20MGD)	6.62	37.2	43.2	86.4	3.12	8.62	3.18
2	Coronation Pillar Ph-IIIISTP (10MGD)	5.09	31.4	22.5	90	3.74	8.65	2.82
3	Delhi Gate STP New(15MG D)	6.57	7	5.5	34	0.76	2.53	1.31
4	Delhi Gate STP Ph-I(2.2MGD)	6.31	7.8	6.4	34.59	1.04	2.16	1.37
5	Keshopur STP New(12MG D)	5.89	14.2	12.5	51.23	1.88	3.30	1.94
6	Sen Nursing Home Nallah STP(2.2 MGD)	6.53	7.6	6.3	33.8	1.4	2.70	1.42

S. No.	Name of STP	pH (6.5-9)	TSS (mg/l)	BOD (mg/l)	COD (mg/l)	Oil & Grease (mg/l)	Ammonical Nitrogen (mg/l)	Dissolved Phosphate (mg/l)
7	Nilothi STP-II (20MGD)	6.59	7.8	7.4	35.14	1.37	4.68	1.42
8	Nilothi STP (40MGD)	6.55	74.3	24	85.05	3.46	4.61	1.69
9	Najafgarh STP (5MGD)	6.78	40.2	26.4	82.9	2.35	5.95	3.58
10	Rithala STP Ph-I (40MGD)	-	-	-	-	-	-	-
11	Rithala STP Ph-II (40MGD)	6.67	8.4	8.7	37.8	1.3	3.62	1.47
12	Pappankalan STP (20MGD)	6.69	39	27.6	90.46	3.74	4.69	2.30
13	Pappankalan STP-II (20MGD)	6.61	9.4	9.1	36.8	3.31	3.49	1.59
14	Narela STP (10MGD)	6.76	24.4	14.7	51.26	1.3	4.04	2.04
15	Okhla STP New (30MGD)	6.64	7.2	5.9	38.53	0.86	2.37	1.19
16	Kondli STP (10 MGD)	6.54	13.6	12.2	59.2	2.12	4.41	1.49
17	Kondli STP New (45MGD)	6.49	79	46.3	153.23	3.38	6.51	3.41
18	Kapashera STP (5MGD)	6.46	12.2	10.4	43.6	1.4	3.63	1.49

S. No.	Name of STP	pH (6.5-9)	TSS (mg/l)	BOD (mg/l)	COD (mg/l)	Oil & Grease (mg/l)	Ammonical Nitrogen (mg/l)	Dissolved Phosphate (mg/l)
19	Mehrauli STP (15MGD)	6.51	15.6	10.71	52.4	1.31	3.88	1.75
20	Vasant Kunj STP (2.2MGD)	6.63	22.6	15.8	52.03	2.80	4.36	4.74
21	Vasant Kunj STP(3MGD)	6.42	16.6	15.7	65.4	1.67	3.27	2.23
22	Yamuna Vihar STP Ph-III (25MGD)	6.48	33.3	22.6	82.5	2.71	3.76	2.29
23	Chilla STP (9MGD)	6.39	9	5.95	35.13	0.96	2.73	1.39
24	Akshardham/ Common Wealth Games Village STP(1MGD)	6.49	3.4	2.7	21.86	0.43	1.09	1.00
25	Yamuna Vihar STP Ph I (10MGD)	6.54	16	14.9	52.1	2.18	5.33	3.41
26	Yamuna Vihar STP Ph- II (10MGD)	6.57	23	16.6	69.06	2.74	5.11	3.46
27	Molar band Mini STP (0.66MGD)	5.24	20.6	14	60.4	1.52	1.98	1.73

S. No.	Name of STP	pH (6.5-9)	TSS (mg/l)	BOD (mg/l)	COD (mg/l)	Oil & Grease (mg/l)	Ammonical Nitrogen (mg/l)	Dissolved Phosphate (mg/l)
28	Okhla STP (12MGD)	5.88	20.2	13.4	55.8	2.506	4.00	1.81
29	Okhla STP (16MGD)	5.94	21.20	14.47	53.99	1.33	3	1.08
30	Okhla STP (37MGD)	6.56	22.67	16.49	79.73	1.13	3.95	1.42
31	Okhla STP (45MGD)	6.61	23.2	16	73	1.77	3.76	1.59
32	Keshopur STP (40MGD)	6.67	56.2	37.2	120.06	3.26	10.97	3.83
33	Keshopur STP (20MGD)	6.59	46	39	117.66	3.22	10.57	3.89
34	Rohini STP (15MGD)	6.78	16.6	14.3	59.52	2.76	5.63	2.45
35	Ghitorni STP (5MGD)	Sample could not be taken						

Annual Average Treated Water Quality of CETPs

All the 13 operational CETPs in Delhi are being monitored by DPCC Laboratory on monthly basis and Analysis Reports are placed on the website of DPCC and also conveyed to the CETP Societies/Operator of CETPs for rectification of the deficiencies to meet the prescribed standards.

Annual Average Treated Water Quality of 13 CETPs for the period of April, 2021 to March, 2022 is given in Tables below:

Table: Annual average treated water quality of 13CETPs for the period of April 2021-March 2022 [excluding heavy metals]

S. No.	Name of CETP	Capacity (In MLsD)	pH (6-9)	TSS (100 mg/l)	COD (250 mg/l)	BOD (30mg/l, 3 days at 27°C)	Chlorides (1000mg/l)	Sulphates (1000 mg/l)	Oil & Grease (10 mg/l)	TDS (2100 mg/l)	Ammonical Nitrogen as N (50mg/l)	Sulphides as S (2mg/l)
1	Wazirpur CETP	24	6.8	62	108.2	31	682.8	52.2	2.7	1297	14.6	3.8
2	SMA CETP	12	7.5	41.3	66.2	22.1	925.6	85.7	2.0	1293.7	8.4	1.8
3	Okhla CETP	24	7.5	58.2	100.6	28.8	155.3	155.3	3.8	1111.7	19.8	2.3
4	Narela CETP	22.5	7.5	50.2	78.6	22.4	721	69.4	2.7	1482.5	8.1	2.2
5	Naraina CETP	21.6	7.0	46	90.4	24.3	602.3	53.8	3.9	670.3	8.8	2.6
6	Nangloi CETP	12	7.4	55.6	88.6	24.4	1023	66.6	2.6	1490	6.9	2.3
7	Mangolpuri CETP	2.4	7.6	58.6	80.7	25.7	907.2	66.2	3.7	1465	2.8	3.0
8	Lawrence Road CETP	12	7.2	95.3	152.1	47	859.1	777.3	7.5	1814	6.6	4.0

S. No.	Name of CETP	Capacity (In MLsD)	pH (6-9)	TSS (100 mg/l)	COD (250 mg/l)	BOD (30mg/l, 3 days at 27°C)	Chlorides (1000mg/l)	Sulphates (1000 mg/l)	Oil & Grease (10 mg/l)	TDS (2100 mg/l)	Ammonical Nitrogen as N (50mg/l)	Sulphides as S (2mg/l)
9	Jhilmil CETP	16.8	7.4	64	94.2	29.3	970.2	186.2	3.2	1269	6.4	2.2
10	Bawana CETP	35	7.2	49.7	84.1	23.1	764.5	78.8	4.3	1501.2	5.7	1.6
11	Badli CETP	12	7.1	60.0	115.1	34.8	411.7	361.3	3.0	1048.6	32.0	2.0
12	GTK Road CETP	6	7.0	50	95.1	28.5	738.6	48.2	4.4	1315.8	15.5	3.1
13	Mayapuri CETP	12	7.6	57.7	93.4	26.6	663.1	125.1	2.6	1198.5	8.7	1.8s

Table : Annual average treated water quality of 13 CETPs for the period of April 2021 –March 2022 [heavy metals]

S. No.	Name of CETP	Capacity (in MLD)	Ni (3 mg/l)	Cu (3 mg/l)	Zn (5 mg/l)	Cr+3 (2 mg/l)	Pb (0.1 mg/l)	Cd (0.5 mg/l)
1	Wazirpur CETP	24	1.7	1.1	1.2	-	0.6	-
2	SMA CETP	12	1.1	2.2	1.1	0.9	0.671	-
3	Okhla CETP	24	1.7	0.4	1.3	-	0.82	-
4	Narela CETP	22.5	1.5	0.7	1.5	-	0.42	-
5	Naraina CETP	21.6	0.9	0.8	0.9	-	2.5	-
6	Nangloi CETP	12	1.0	0.2	1.1	-	0.7	-
7	Mangolpur iCETP	2.4	0.9	0.72	0.86	-	0.5	-
8	Lawrenc eRoad CETP	12	1.07	0.9	1.2	0.9	0.66	-
9	Jhilmil CETP	16.8	1.0	0.2	1.1	-	0.7	-
10	Bawana CETP	35	1.5	.1	1.3	0.8	-	-
11	Badli CETP	12	0.8	0.5	1.2	0.87	-	-
12	GTKRoad CETP	6	1.3	0.6	1.0	-	0.6	-
13	Mayapuri CETP	12	0.8	0.6	0.7	-	0.51	-

6.5 Measures taken for Control of Pollution in River Yamuna

Major contributor of the water pollution in river Yamuna is sewage generated from domestic sector particularly untreated sewage discharge from the unauthorised colonies/clusters in Delhi. Besides domestic sector water pollution is also caused by inadequately treated effluent from the industries and also from the dumping of solid waste into the various drains out falling into river Yamuna.

Sewage Treatment

Estimated Sewage Generation in Delhi is 3491.4 MLD (768 MGD). There are 34 operational STPs of Delhi Jal Board in March.2022 which were monitored by DPCC on monthly basis & Analysis Results were placed on the website of DPCC and also communicated to DJB for taking rectification measures to meet the prescribed standards. Online Continuous Effluent Monitoring Systems (OCEMS) have been installed at all the operational STPs of DJB to track the pollutant load in the wastewater discharged from these plants into the drains. Data from OCEMS installed at STPs are received by CPCB & DPCC through the server connected to the OCEMSs

Sewage Treatment:

Estimated Sewage Generation	3491.4 (768 MGD)
Functional Sewage Treatment Plants (STPs)	34 (at 20 Locations)
Capacity of 34 Functional STPs	2828.4 MLD (622.16 MGD)
Treatment of Sewage (as on 31.03.2022)	2477.2 MLD (544.9 MGD) (87.6% of Installed Capacity)
Gap between Sewage Generation & Installed Capacity	663 MLD [145.84 MGD (19 %)]

Sewage Treatment Capacity Augmentation Plan of Delhi to meet the Gap and Accommodate future Increase in Sewage Generation:

Govt. of NCT of Delhi is primarily working on following 4 Sectors for augmenting the sewage treatment capacity in Delhi and details are given in following Table:

- (i) Rehabilitation of existing 3 STPs at Kondli Ph-II & Rithala Ph-I and Yamuna Vihar Ph-II.
- (ii) Upgradation and increasing capacity of remaining 18 existing STPs

- (iii) Construction of 3 New STPs at Okhla, Delhi Gate and Sonia Vihar
- (iv) Construction of 40 DSTPs [26 DSTPs at various locations of Delhi and 14 DSTPs in Najafgarh Drainage Zone]

River Yamuna - Monitoring of Water Quality & various Projects of DJB and related NGT Cases

DPCC is carrying out Water Quality Monitoring of River Yamuna at 8 locations, 22 drains which are out falling into river Yamuna, 13 CETPs & all the operational STPs of Delhi Jal Board on monthly basis and Analysis Results are placed on the website of DPCC.

Various projects of Delhi Jal Board related to treatment of sewage/ waste water in drains (Interceptor Sewer Project, Tapping of Drains, Construction of New STPs at Coronation Pillar & Okhla, Rehabilitation of Existing STPs at Rithala, Kondli & Yamuna Vihar) were monitored through the meetings of Chief Secy. from time to time resulting in enhancement of treatment through STPs from 535 MGD in 2020-2021 to 545 MGD in year 2021-2022.

- ✚ Coordinated efforts were made in respect of NGT case O.A. No. 673/ 2018 in the matter of “News item published in ‘The Hindu’ Authored by Shri Jacob Khoshy titled “More river stretches are now critically polluted: CPCB” (Regarding Control of Pollution in Rivers in India and in case of Delhi River Yamuna) and related issues including compilation of Information/ Action Taken Reports etc. in respect of Delhi.
- ✚ Progress/ action taken by various departments (DJB, DDA, DSIIDC, and Local Bodies etc.) related to their projects for control of pollution in river Yamuna were sent to Ministry of Jal Shakti & CPCB through the Monthly Progress Reports of Delhi regularly.

Trapping of Drains:

There are 22 drains which are out falling into river Yamuna in the Delhi and brief is as follows:

- (i) 9 Drains have been tapped.
- (ii) 02 Drains (Delhi Gate Drain & Sen Nursing Home Drain) are partially tapped.
- (iii) 02 Drains (Najafgarh & Shahdara) are large drains and technically not feasible to tap whole drain however these drains are included in the Interceptor Sewer Project where substantial flow of sub-drains under their command areas has been / will be tapped and treated after tapping of sub drains.
- (iv) In case of remaining 9 drains, flow is yet to be tapped / diverted to Sewer / STPs for treatment.

Providing Sewerage Network in Unauthorised Colonies / Un-sewered Areas in Delhi:

Status of Sewerage Network in Unauthorised Colonies as in March, 2022 (Source: DJB):

S. No	Status	Cumulative Status as in March, 2022 (No)	Remarks
1	Sewer line laid and notified	716	-
2	Work of sewer network is in progress	552	-
3	Colonies where NOC is awaited/O Zone	161	The work shall be taken up after NOC from Forest Department/Ozone.
4	Colonies where sewerage network is to be laid along with Decentralized STPs	370	The work shall be taken up after allotment and possession of land by DDA & Revenue Deptt.
	Total	1799	

Sewage and Faecal Sludge Management (Septage Management):

Septage Management Regulations notified by the Urban Development Department, GNCTD on **12.11.2018 (published in Gazette on 21.11.2018)** and necessary action is to be taken by Delhi Jal Board, District Magistrates and Local Bodies / Municipal Corporations as per the provisions of the said Notification. On an average 6 to 7 lakh litres of septage per month is being collected and treated at the STPs of DJB.

DJB has registered 281 licensed vendors (Emptiers) for collection and transportation of sewage from the septic tanks and has identified 86 SPS points for receiving the Septage.

Agency	No of Vehicles Authorised by DJB (As on 31.03.2022)	No. of Functional SPSs for collection of septage from vendors	Septage collected & Treated in March, 2022	Septage treated by DJB (As on 31.03.2022)
DJB	281	86	3.84 Crore Litres	90.53 Crore Litres

Details of Alternate Treatment Technology being adopted by the State/UT:

In-situ Bioremediation / Phytoremediation of Sewage in Drains :

- Integrated Drain Management Cell (IDMC) headed by Chief Secy, GNCTD has been constituted vide order dated 17.03.2020 for remediation and management of all drains of Delhi as per the orders of Hon'ble NGT in OA No.06/2012.
- IDMC is having members from all the Drain Owning Agencies (DOAs).
- Meetings of IDMC are held and 12 meetings were held till March, 2022.
- DOAs have submitted / are submitting their Action Plan.

Prevention of Dumping of Solid Waste in Drains :

Directions issued by Chief Secretary vide order dated 09.01.2019 and Urban Development Department, GNCTD vide order dated 15.01.2019 for prevention of the dumping of solid waste in the drains are to be complied by all the Drain Owning Agencies in Delhi. The matter is being coordinated by the Urban Development Department, GNCTD.

Re-use of Treated Water:

Action Plan for use of treated waste water from STPs has been prepared by Delhi Jal Board and submitted to CPCB in compliance of the Orders of Hon'ble NGT dated 21.05.2020 & 21.09.2020 in OA No. 148/2016 in the matter of Mahesh Chandra Saxena Vs. South Delhi Municipal Corporation & Ors.

Out of about 514 MGD of treated waste water from STPs about 90 MGD was used for various purpose e.g. Horticulture, Irrigation, DTC Depot etc

Order dated 25.02.2021 of Hon'ble National Green Tribunal in OA No. 386/2017 in the matter of "Rear Admiral A P Revi IN (Retd.) Vs Delhi Jal Board & Ors." regarding use of treated water for gardening in public parks :

Operative part of the said order is reproduced below :

"We are of the view that even though the steps are reported to have been taken, the matter needs to be taken forward, after due consideration of the objections of the applicant to ensure that fresh water is not used for gardening in public parks by the DDA and the South Delhi Municipal Corporation and instead only treated water is so used. The order of this Tribunal

dated 27.01.2021 in OA No. 6/2012, Manoj Mishra v. Union of India & Ors. approving the recommendations of the Yamuna Monitoring Committee may be duly followed. The DJB may ensure supply of such treated water with adequate pressure and wherever piped supply is not available, supply may be ensured by tankers. DPCC may monitor similar action by other agencies in Delhi owning parks and by bulk users, including other Municipal Corporations for adopting similar course of action to save drinking water for drinking purposes to fulfil basic need of maximum people. This may be overseen by the Secretary, Environment, Delhi.”

In view of the above said order of Hon’ble NGT, DPCC sent a letter on 09.03.2021 to all the park Owning Agencies & concerned Authorities to take necessary action w.r.t said order of Hon’ble NGT and ensure that only treated water [from Sewage Treatment Plants (STPs) etc] is used in the parks under the jurisdiction of their departments and fresh water is not used for gardening in public parks.

All the concerned Departments / Agencies have also been requested to nominate concerned Senior Officer as Nodal Officer & provide information regarding use of treated water in the Parks / Bulk Use on monthly basis to DPCC.

As informed by Delhi Jal Board, a meeting was held on 13.04.2021 through Video Conferencing regarding Hon’ble NGT order dated 26.03.2021 in OA no 06/2012 in MA no 25/2021 titled Manoj Mishra Vs South Delhi Municipal Corporation & Union of India & Ors under chairmanship of

Chief Secretary, Delhi. After detailed deliberations and discussions on the various aspects of the issue, Chief Secretary Delhi, directed that a long term perspective plan should be prepared for the optimum use of treated effluent in Delhi, which must include the maximum utilization of treated water for horticulture purpose including the coverage of all parks and gardens in Delhi, to replace the extraction of precious ground water through bore-wells for this purpose. In this regard, Delhi Jal Board shall carry out the survey, preparation of DPR, cost estimates, etc. of the complete scheme by providing piped network up to each park. Accordingly M/s WAPCOS was directed to submit the revised proposal for feeding through pipe line network up-to all parks provided by the stakeholders. M/s WAPCOS was carrying out survey work.

Total 341 tankers were deployed by various stakeholders departments during the month of March, 2022 for carrying the treated water from STPs for use in Horticulture & other purposes.

Common Effluent Treatment Plants (CETPs) in Delhi

- A Committee headed by Member Secretary, DPCC and comprising Representatives of CPCB, Industries Department, Govt. of NCT of Delhi, DSIIDC, NEERI (from Zonal Center Delhi) and DPCC was constituted vide office order dated 03.11.2021 for finalizing the Inlet Standards for CETPs in NCT of Delhi with respect to Notification dated 01.01.2016 of MoEF & CC regarding standards for CETPs.
- Meetings of the said Committee were held on 12.11.2021, 15.12.2021 & 07.01.2022 and various issues related to prescribing Inlet Quality Standards for CETPs in Delhi and stringent standards for Treated Effluent keeping in view the proposed upgradation of CETPs with the objective of Reuse/ Recycle of treated waste water from CETPs were discussed and deliberated in these meetings.
- The said Committee finalized & prescribed the Inlet Water Quality Standards for All the 13 CETPs in NCT of Delhi including General Parameters, Ammonical-Nitrogen and Heavy metals which are to be achieved by Individual constituent Industry /Unit discharging its effluent in the concerned CETP .
- The said Committee also finalized & prescribed standards for Treated Effluent Quality for All the 13 CETPs in Delhi in respect of the Parameters which have been made stringent than prescribed in the notification of MoEF&CC dated 01.01.2016, for upgradation of CETPs / New CETPs in Delhi with the objective of Reuse/Recycle of treated waste water from CETPs .
- An order was also issued in this regard by the Chairman, DPCC on 02.03.2022.

All the existing 13 CETPs are being monitored by DPCC Laboratory on monthly basis and Analysis Reports are placed on the website of DPCC and also conveyed to the CETP Societies/ Operator of CETPs for rectification of the deficiencies to meet the prescribed standards. Sufficient treatment capacity (212.3 MLD) is available with existing 13 CETPs for management of industrial effluent generated from 17 approved industrial areas. The units which are operational in non-CETP industrial areas have individual waste water treatment facilities. Online Monitoring System (OLMS) have been installed on all the 13 CETPs for measuring the pH, TSS, BOD & COD at the outlet of the CETPs. All these OLMS are connected to servers of DPCC and CPCB. Calibration of OLMS installed at CETPs is being carried out by DPCC Water Laboratory on quarterly basis.

DSIIDC has engaged CSIR-NEERI vide letter dated 05.11.2019 for providing consultancy w.r.t various issues related to CETPs including up gradation of CETPs as per following scope of work:

- a. Formulating an action plan for the survey of the individual industries in various industrial areas for ensuring their connectivity with the waste water conveyance system of CETPs and identifying industrial units violating environmental pollution norms.
- b. To assess the overall functioning of all 13 CETPs through a physical survey.
- c. To formulate an action plan for 13 CETPs after the study of the survey report in terms of:
 - i. Required up-gradation and retrofitting of CETPs to make them compatible with the composition of effluent reaching CETP for capacity utilisation (use of CETP as STP) and to confirm the effluent discharge standards and to work out cost associated with this task.
 - ii. Management of the hazardous sludge being generated by CETPs.
 - iii. Maximizing utilization of treated water from CETPs in order to achieve Zero Liquid Discharge and reducing dependency of greenbelts/parks in and around CETPs on ground water.
- d. Study regarding requirement of CETPs in 11 industrial areas which are presently not having CETP.

NEERI has carried out Overall Performance Evaluation of all the 13 CETPs [August 2020 & March 2021). Draft Reports on “Status, Gap Analysis, and Suggestions for Improvement and Up gradation” in respect of all the 13 CETPs have been prepared and submitted to DSIIIDC. Meetings were held regularly to review the progress.

Common Effluent Treatment Plants (CETPs) in Delhi

S. No.	Name of CETP	Name of CETP Society/ Operator of CETP	Industrial Areas Connected with CETP	Capacity (in MLD)	Flow (in MLD) (March, 2022)
1	Narela	PNC Delhi Industrial Infra Pvt. Ltd.	Narela Indl. Area	22.5	11.2
2	Nangloi	DSIDC & Udyog Nagar CETP Society	Nangloi & Udyog Nagar Indl. Areas	12	2.68
3	Mayapuri	Mayapuri Industrial Area CETP Society	Mayapuri Indl Area	12	2.57

4	Naraina	Naraina Industrial Area CETP Society	Naraina Indl Area	21.6	3.3
5	Bawana	Bawana Infra Development Pvt. Ltd	Bawana Indl. Area	35	24.4
6	Badli	Badli Industrial Estate CETP Society	Badli Industrial Estate	12	0.734
7	Okhla	Okhla Industrial Area CETP Society	Okhla Indl. Area	24	1.334
8	SMA	North West Industrial Area CETP Society	SMA, Rajasthani Udyog Nagar and SSI Industrial Areas	12	2.299
9	GTK Road	GTK Road Industrial Estate CETP Society	GTK Road Indl. Area	6	0.30
10	Wazirpur	Wazirpur Industrial Pollution Control(CETP) Society	Wazirpur Indl Area	24	2.198
11	Lawrence Road	Keshav Puram Industrial Area (KESPIA) CETP Society	Lawrence Road Indl. Area	12	1.7
12	Jhilmil	Jhilmil and Friends Colony Industrial Area CETP Society	Jhilmil and Friends Colony Indl. Areas	16.8	3.52
13	Mangolpuri	Mangolpuri Industrial Area CETP Society	Mangolpuri Indl. Area	2.4	1.75
		Total		212.3 MLD	58.09 MLD

Demarcation of Floodplain and Removal of Illegal Encroachments:

i. Demarcation of 1 in 25 years Flood Plains & Fixing up of Bollards and Fencing :

The demarcation of 1: 25 years flood plain of River Yamuna pertains from Wazirabad to Jaitpur on both banks. 100% work for demarcation of flood plains completed. 591 Bollards (marked with GPS Coordinates), 375 Flag Posts & 27 sign boards for the entire stretch from Wazirabad barrage to Dhobi ghat Jaitpur have been installed.

ii. Engagement of Private Security to stop illegal Dumping:

125 Security Guards have been deployed by DDA round the clock in three shifts at vulnerable points, with 4 patrolling vehicles in the Yamuna Flood Plain area from Wazirabad Barrage to Okhla Barrage to check illegal dumping of malba and to prevent encroachment. GPS monitoring of security guards & patrolling vehicles is being done.

iii. **Installation of Electronic Surveillance System:**

81 No. CCTV cameras have been installed at 27 locations from Wazirabad Barrage to Okhla Barrage to check the illegal dumping of Malba in the Yamuna Flood Plain area.

iv. **Removal of Encroachment from the Flood Plain:**

600 Jhuggies / Chappers have been demolished and 5 Acre land has been reclaimed. 150 Jhuggies in 2 acre land could not be removed due to stay by Courts.

v. **Demolition Program :**

477.79 Hectares area has been retrieved from the encroachment by DDA in the floodplains of River Yamuna.

vi. **Removal of C&D Waste :**

36,200 metric tonnes of C&D waste lying in floodplain has been lifted to IL&FS site or utilized for development of Yamuna Project by DDA.

vii. **Restoration and Rejuvenation of the Floodplains of River Yamuna.**

DDA is going ahead with the Restoration and rejuvenation of floodplains of River Yamuna. The complete stretch of Zone-'O' falling under the jurisdiction of DDA has been subdivided into 10 projects including the development of Bio-diversity Park near Kalindi Kunj Colony.

6.6 Requirement of Minimum Environmental Flow in River Yamuna

Minimum Environmental Flow for the dilution of the polluted water in river Yamuna in Delhi is required to meet the desired water quality levels in river Yamuna for bathing purpose i.e. BOD < 3 mg/l & DO > 5 mg/l. To assess the minimum required environmental flow of river Yamuna for stretch between Hathini Kund to Okhla, a comprehensive study was assigned by National Mission for Clean Ganga (NMCG) to National Institute of Hydrology (NIH), Roorkee on 24.12.2018.

Final Draft Report has been submitted by NIH to NMCG. E-flow of 23 cumecs in the lean season has been recommended in the NIH study. Ministry of Jal Shakti (MoJ) is to take necessary action for maintaining the E-flow as recommended in the said Report of NIH. However Ministry of Jal Shakti (MoJ) / National Mission for Clean Ganga (NMCG) has observed that the water sharing agreement of 1994 among the riparian states of Uttarakhand, HP, UP, Haryana, Rajasthan and

NCT Delhi is due for revision only in 2025 unless any of the states so demand implying that no revision of water sharing will be possible to achieve the E-flow in river Yamuna.

6.7 Prevention of Dumping of Solid Waste in Drains and River Yamuna

Directions issued by Chief Secretary vide order dated 09.01.2019 and Urban Development Department, GNCTD vide order dated 15.01.2019 for prevention of the dumping of solid waste in the drains are to be complied by all the Drain Owning Agencies in Delhi. The matter is being coordinated by the Urban Development Department, GNCTD.

6.7.1. Ban on Idol Immersion:

DPCC had issued Directions under section 33(A) of Water Act on 13.08.2020 to various Agencies/ Departments for effective implementation of guidelines for immersion of idols on the festive occasion of Ganeshostav and Durga Pooja etc. in accordance with the revised guidelines of CPCB issued on 12.05.2020. There was complete prohibition of immersion of Idols in River Yamuna in Delhi.

6.7.2. Orders of Hon'ble Supreme Court & Hon'ble National Green Tribunal for control of Pollution and Rejuvenation of River Yamuna

Hon'ble Supreme Court and Hon'ble National Green Tribunal have passed various orders from time to time for control of pollution in river Yamuna and its rejuvenation.

6.7.3. Yamuna Cleaning Cell (YCC)

Yamuna Cleaning Cell (YCC) under the chairmanship of Chief Executive Officer, DJB was constituted vide order dated 03.12.2021 and reconstituted vide order dated 09.02.2022.

As per the said orders, Yamuna Cleaning Cell (YCC) shall be responsible for the cleaning and execution of Yamuna Cleaning Action Plan as decided by Govt. of NCT of Delhi.

The YCC was to focus on following 6 action points for control of pollution in River Yamuna:

- Increasing the capacity of Sewage Treatment Plants (STPs) and Decentralized Sewage Treatment Plants (DSTPs).
- In-situ cleaning of 4 drains: In situ treatment / cleaning of 4 major drains (Najafgarh, Supplementary Drain, Barapulla, Shahadara) outfalling into river Yamuna.
- All industrial waste to be diverted to Common Effluent Treatment Plants (CETPs)

- Connection of Drains / Drainage system of JJ Clusters (675 Nos) with the sewerage network.
- Connection of each and every household to sewerage network (including connections in all the 1799 unauthorized colonies)
- Desilting of sewer lines.

Meetings of the Yamuna Cleaning Cell were held regularly on weekly basis and 17 meetings were held till 28.03.2022. Eleven Teams comprising of the representatives of Delhi Jal Board, DPCC, DSIIDC & 3 Municipal Corporations (North DMC, SDMC & EDMC) were constituted for Inspections and taking action against the violating Water Polluting Industries/ Units in Delhi.

Analysis report of groundwater nearby Ghazipur landfill site: April 2021– March 2022

Sampling Location	pH	TDS (mg/l)	Cl (mg/l)	Hardness as CaCO ₃ (mg/l)	Ca (mg/l)	SO ₄ (mg/l)	Nitrate (mg/l)	Mg (mg/l)	Arsenic (mg/l)	Zinc (mg/l)	Fe (mg/l)	PB (mg/l)	Cu (mg/l)	Cr (mg/l)	Ni (mg/l)	Cd (mg/l)
Desirable Limit for Drinking Water	6.5-8.5	500	250	300	75	200	45	30	1	5	0.3	0.05	0.05	0.05	-	0.01
Ghazipur Dairy Farm, Gali no.4	7.2	1040	98	530	76	490	0.32	102	-	-	-	-	-	-	-	-
Ghazipur Dairy near Masjid	6.8	1080	118	710	168	359	0.32	121	-	-	-	-	-	-	-	-
Ghazipur landfill site near entry Gate	6.9	1860	168	550	84	385	0.25	104	-	-	-	-	-	-	-	-
Fish market Landfill Site Ghazipur	7.3	2170	168	860	176	333	0.38	153	-	-	-	-	-	-	-	-

Analysis report of groundwater nearby Okhla Landfill site: April 2021– March 2022

Sampling Location	pH	TDS (mg/l)	Cl (mg/l)	Hardness as CaCO ₃ (mg/l)	Ca (mg/l)	SO ₄ (mg/l)	Nitrate (mg/l)	Mg (mg/l)	Arsenic (mg/l)	Zinc (mg/l)	Fe (mg/l)	PB (mg/l)	Cu (mg/l)	Cr (mg/l)	Ni (mg/l)	Cd (mg/l)
Desirable Limit for Drinking Water	6.5-8.5	500	250	300	75	200	45	30	1	5	0.3	0.05	0.05	0.05	-	0.01
Okhla Landfill Site	7.2	894	63	310	76	471	0.29	52	-	-	-	-	-	-	-	-
ESI Hospital Okhla	6.6	1060	48	1400	152	602	0.3	280	-	-	-	-	-	-	-	-
Okhla Bus Depot	7.3	652	108	310	40	383	0.3	60	-	-	-	-	-	-	-	-
BP Singh Camp Colony, Near Shiv Mandir	6.8	388	68	930	52	284	0.32	197	-	-	-	-	-	-	-	-

Analysis report of groundwater nearby Bhalswa Landfill site: April 2021– March 2022

Sampling Location	pH	TDS (mg/l)	Cl (mg/l)	Hardness as CaCO3 (mg/l)	Ca (mg/l)	SO4 (mg/l)	Nitrate (mg/l)	Mg (mg/l)	Arsenic (mg/l)	Zinc (mg/l)	Fe (mg/l)	pB (mg/l)	Cu (mg/l)	Cr (mg/)	Ni (mg/)	Cd (mg/)
Desirable Limit for Drinking Water	6.5-8.5	500	250	300	75	200	45	30	1	5	0.3	0.05	0.05	0.05	-	0.01
Bhalswa Sanjay Gandhi Transport	7.8	115	108	560	92	521	0.52	105	-	-	-	-	-	-	-	-
Bhalswa Dairy	7.6	2160	193	970	144	785	0.35	185	-	-	-	-	-	-	-	-
Bhalswa Landfill Site	6.6	287	333	1780	272	606	0.65	338	-	-	-	-	-	-	-	-
Bhalswa Janta Colony	7.8	104	98	700	116	826	0.2	131	-	-	-	-	-	-	-	-

Analysis report of groundwater nearby Bawana Landfill site: April 2021– March 2022

Sampling Location	pH	TDS (mg/l)	Cl (mg/l)	Hardness as CaCO ₃ (mg/l)	Ca (mg/l)	SO ₄ (mg/l)	Nitrate (mg/l)	Mg (mg/l)	Arsenic (mg/l)	Zinc (mg/l)	Fe (mg/l)	PB (mg/l)	Cu (mg/l)	Cr (mg/l)	Ni (mg/l)	Cd (mg/l)
Desirable Limit for Drinking Water	6.5-8.5	500	250	300	75	200	45	30	1	5	0.3	0.05	0.05	0.05	-	0.01
Main Gate Bawana (SLF)	7.5	429	18	390	16	176	0.27	84	-	-	-	-	-	-	-	-
Store Waste to Energy	7.4	310	28	130	40	307	0.46	20	-	-	-	-	-	-	-	-
Sonot Village Bawana	7.3	551	73	160	60	884	0.44	22	-	-	-	-	-	-	-	-
Bawana Village	7.1	568	53	90	44	307	0.25	10	-	-	-	-	-	-	-	-
Sector 5 Bawana	8.1	852	48	220	64	639	0.12	35	-	-	-	-	-	-	-	-

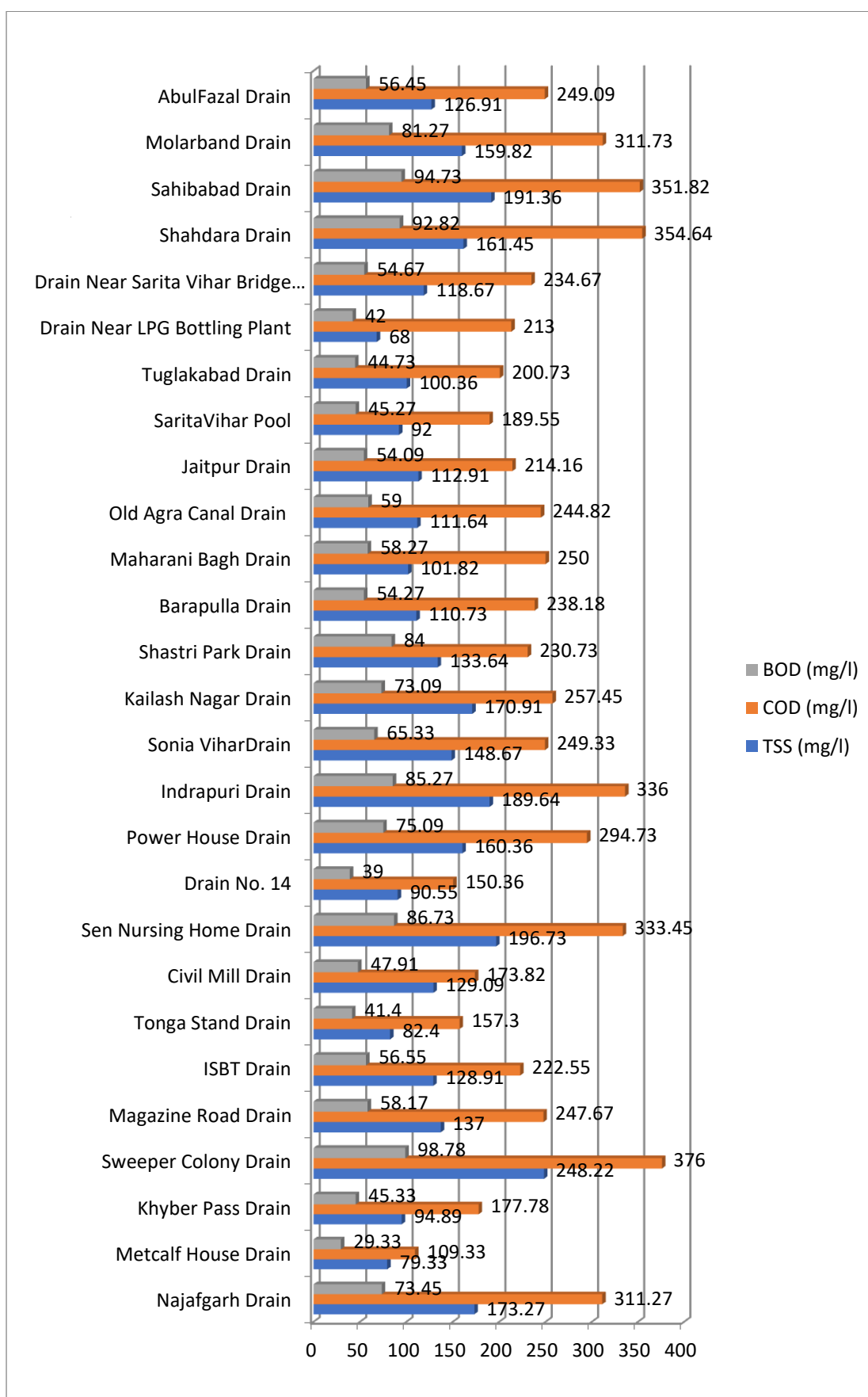
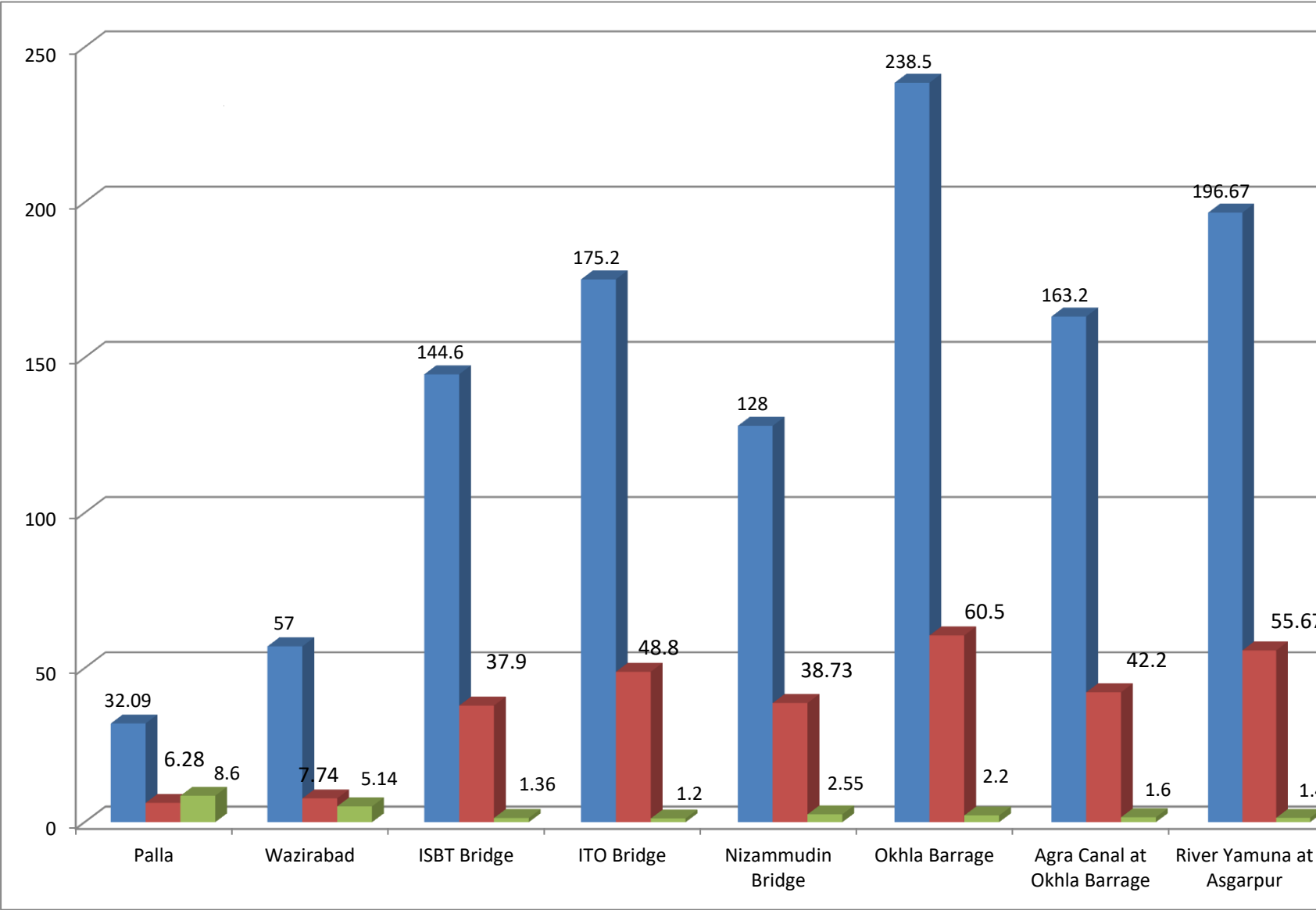


Fig 6.1: Drain waste water quality (annual average April 2021–March 2022)

Fig 6.2: River water quality (annual average April 2021–March2022)



The following are the important observations:

- i. **pH** varied from 6.9 to 7.6. The minimum value was observed at ISBT and maximum value was observed at Palla.
- ii. **BOD** varied from 6.28 mg/l to 60.50 mg/l respectively at Palla and Okhla Barrage respectively.
- iii. **COD** varied from 32.09 mg/l to 238.5 mg/l respectively at Palla and Okhla Barrage respectively.
- iv. **Dissolved Oxygen** varied from 1.20 mg/l to 8.60 mg/l at different locations. Dissolved oxygen was present at Palla throughout the year.

CHAPTER VII

7. AIR POLLUTION

Delhi, the capital city, is situated in the Indo-Gangetic plain, and windblown dust is a primary environmental concern. The city has one of the most robust Ambient Air Quality Network consisting of 40 CAAQMS operated by three different agencies DPCC, CPCB and IMD. DPCC is operating a real-time Air Monitoring Network with 26 stations. Four stations have been operational since 2010, and 20 more were added to the existing network in 2017, which spread out in different land-use areas of Delhi. PM2.5 & PM10, Carbon Monoxide, Nitrogen Dioxide, Sulphur Dioxide, Benzene, Ozone, and Ammonia are among the pollutants monitored at these sites. Meteorological data such as Wind Speed, Wind Direction, Temperature, Humidity, Solar Radiation, Barometric Pressure, and Rainfall are measured at these locations. While Gaseous Pollutants were monitored every minute and a 15-minute average is released in the public domain. The data generated by these stations is used by CPCB for AQI calculation and IMD uses this data for weather prediction purposes. Different departments and agencies use the data for the development of policies. Various academic institutes and agencies extensively use the data for research purposes.

The geographical distribution of Air Quality Monitoring Stations is depicted in Figure 1, and the Location with address is shown in Table 1.

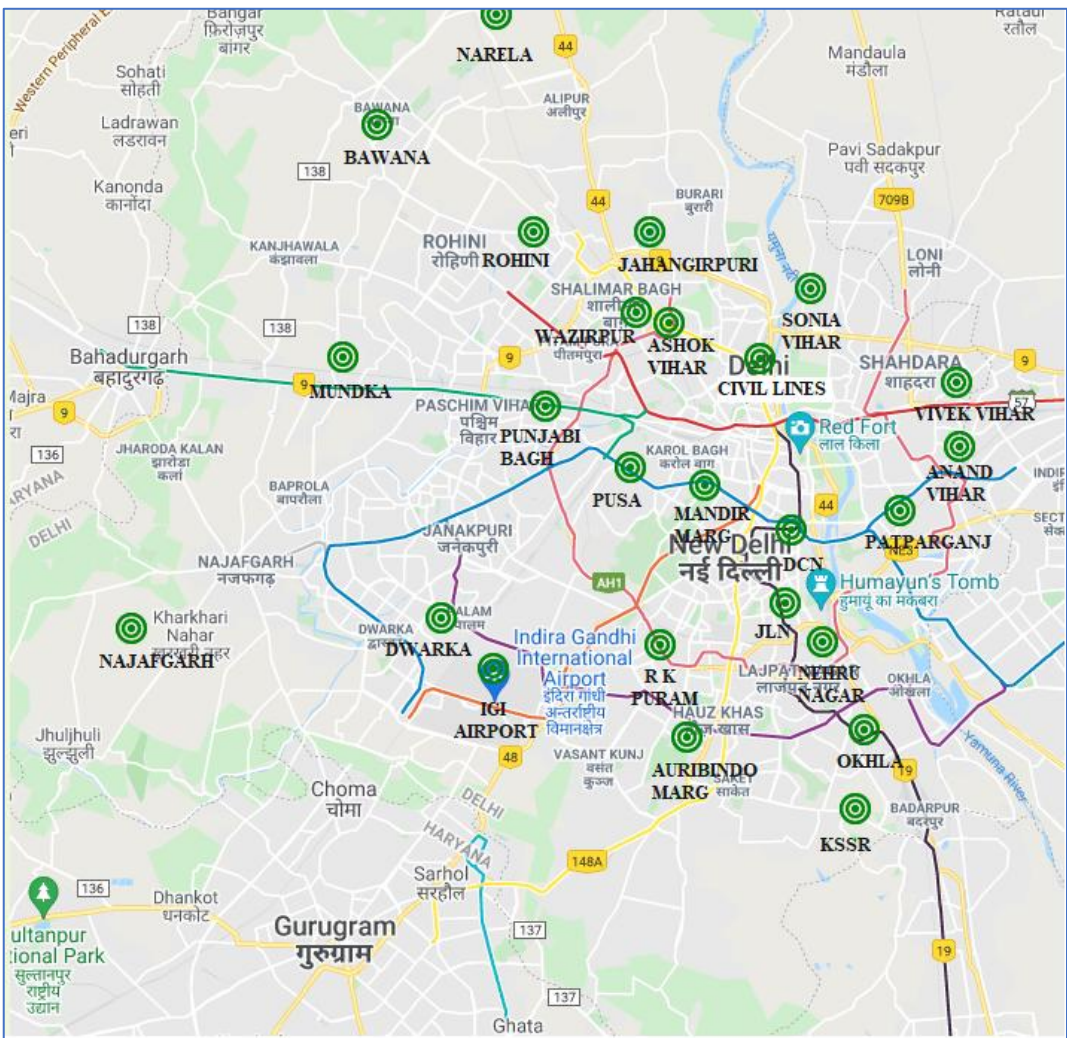


Figure 1: Geographical Distribution of Air Quality Monitoring Stations

Table 2: Air Quality Monitoring Stations Address

S.NO	Name	Address
1	Mahatma Gandhi Institute for Combating Climate Change	Alipur, Bakthawarpur Road, Bakoli, Delhi-110036
2	Industrial Training Institute,	K Block, Near Babu Jagjeevan Ram Hospital, Bhalswa, Jahangirpuri, Delhi-110033
3	ITI, Narela	Shahpur Garhi, Narela, New Delhi- 110040
4	Sonia Vihar Water Treatment Plant (DJB)	Wazirabad Rd, JagatPuri, Sonia Vihar, New Delhi-110094
5	Mother Dairy Plant,	30, New Patparganj Road, Block D, Patparganj, New Delhi-110092
6	Satyawati College, G.T Karnal Road	Ashok Vihar, Phase- III, Delhi-110052
7	PGDAV College, Srinivaspuri	Nehru Nagar, Opposite Shriniwaspuri, New Delhi- 110065
8	National Institute of Tuberculosis & Respiratory Diseases	Sri Aurobindo Marg, New Delhi
9	Brahmprakash Ayurvedic Hospital, Najafgarh	Khera Dabar, Najafgarh, Delhi-110073
10	ITI Shahdara (Jhilmil Industrial Area),	C176, Block C, Vivek Vihar Phase I, Vivek Vihar, Delhi,110095
11	IARI	PUSA, PUSA institutional Area
12	Dhayanchand Stadium	India Gate, New Delhi-110002
13	J.L.N Stadium	Pragati Vihar, New Delhi-110003
14	Dr Karni Singh Shooting Range, Asola	Suraj Kund Road, Tuglakabad, New Delhi-110044
15	National Institute of Malaria Research	Sector 8, Dwarka, New Delhi, Delhi 110077
16	Mundka Metro Residential Colony	Mundka Metro Residential Colony, Delhi-110041
17	Shaheed Sukhdev College of Business Studies, Rohini	PSP Area-IV, Dr K.N. Katju Marg, Sector-16, Rohini, Delhi-110089
18	Delhi Institute of Tool Engineering,	Wazirpur Industrial Area, Wazirpur, Delhi, 110052
19	DITE, Okhla Industrial Area, New Delhi	Block A, Okhla Phase-II, Okhla Industrial Area, New Delhi-110020
20	Maharshi Valmiki Hospital,	Bawana Industrial Area, Pooth Khurd, New Delhi, Delhi

	Bawana	110039
21	Anand Vihar, ISBT	ISBT
22	Mandir Marg	N.P. Boys Sr. Sec. School, Mandir Marg
23	Punjabi Bagh	SARVODAYA Kanya Vidyalaya, No. 2, Near Central Market
24	R.K.Puram	Kendriya Vidyalaya, Sec-2

7.1 Ambient Air Quality (2021-22)

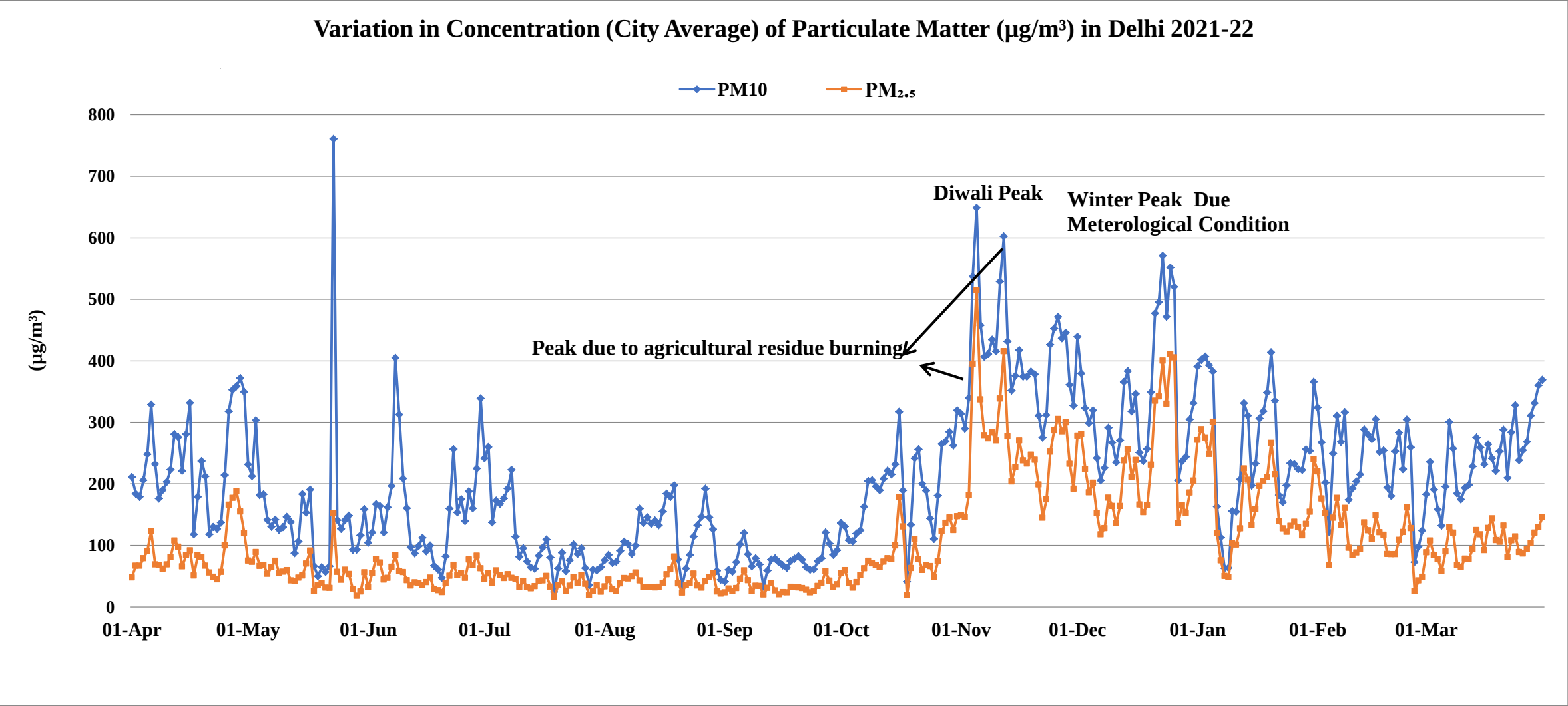
The yearly average of various pollutants during the previous ten years (2012-2022).

Yearly City Average of Various Pollutants of DPCC CAAQMS								
Year	PM 10	PM 2.5	SO2	NO2	O3	NH3	CO	C6H6
Annual Standard	60 (µg/m3)	40 (µg/m3)	50 (µg/m3)	40 (µg/m3)	100 (µg/m3)*	100 (µg/m3)	2 (mg/m3)*	5 (µg/m3)
2012-13	368	162	16.00	93.63	41.73	59.45	1.80	3.03
2013-14	341	150	20.76	71.03	33.94	44.80	2.06	5.23
2014-15	309	144	15.90	83.60	42.83	49.44	1.37	4.38
2015-16	304	139	19.78	72.95	46.72	41.84	1.56	5.23
2016-17	291	125	19.47	69.59	37.69	41.60	1.90	6.15
2017-18	290	141	24.39	75.82	43.61	38.61	2.10	4.45
2018-19	257	119	17.23	49.23	37.01	39.77	1.50	3.68
2019-20	217	107	13.63	45.36	34.44	37.28	1.37	4.09
2020-21	208	111	14.40	41.49	35.73	37.25	1.37	3.58
2021-22	210	106	11.48	41.19	32.30	41.08	1.28	2.37
Yearly City Average of 4 stations till 2017 from 2018 onwards 24 stations.								
*8-hours Standard								

Table-2: Yearly City Average of Various Pollutants of DPCC CAAQMS (2012 – 2022)

7.1.1 Particulate Matter

One of the primary causes of Delhi's high particulate levels is the city's geographic position. Every year, three peak in the concentration of particles were recorded. Dust-laden breezes from the western portion of the nation deliver particles during the summer, by which concentration of PM10 is get peaked in the summer. With the onset of winter paddy harvesting in neighbouring states starts and it initiates agriculture residue burning which is widespread, contributes to high PM2.5 concentrations in October & November. Meteorological conditions such as calm conditions, low wind speed, low mixing height, and low temperature-induced low dispersion of pollutants, results in higher concentrations in November & December. For more understanding, the variation in concentration of particulate matter is shown in Graph 1.



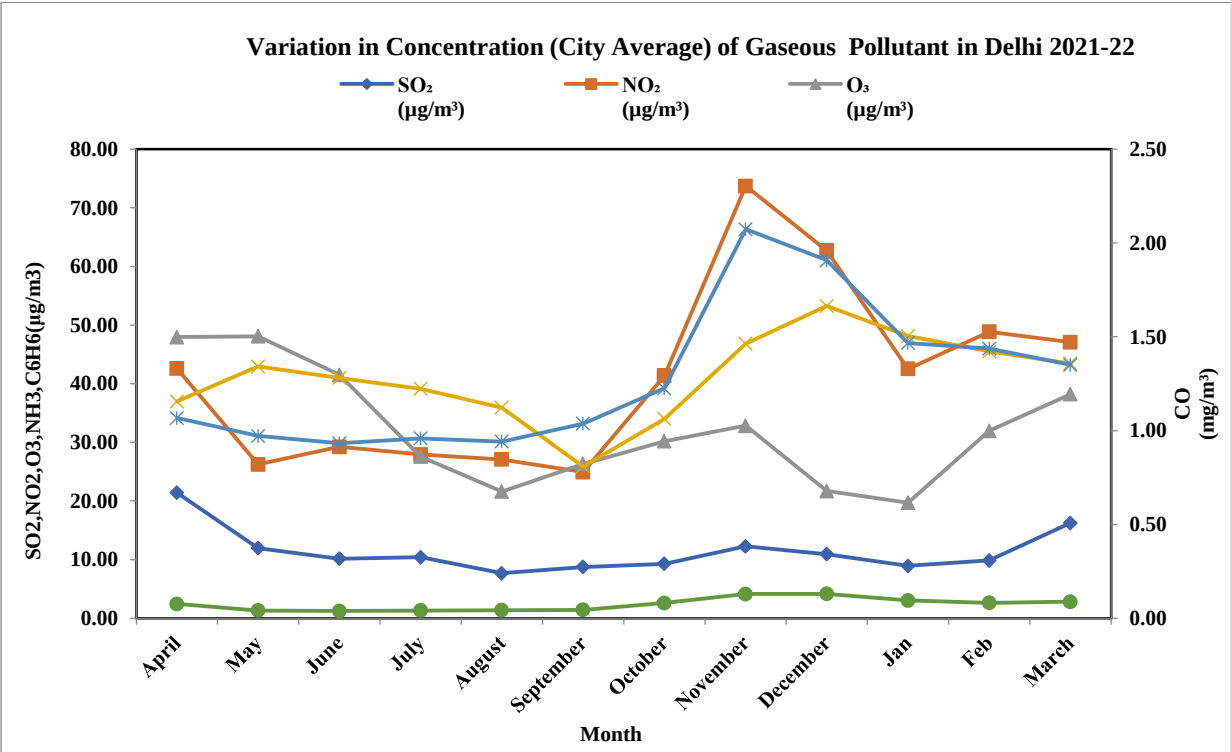
Graph 1: Variation in Concentration (City Average) of Particulate Pollutants in Delhi 2021-22

7.1.2 Gaseous Pollutants

Six Gaseous Pollutants are monitored by DPCC i.e., SO₂, NO₂, O₃, NH₃, C₆H₆ and CO. The primary gaseous air pollutants are Carbon Monoxide (CO), Nitrogen Dioxide (NO₂), and Sulphur Dioxide (SO₂) that are emitted by various sources, including transportation, power generation, refuse incineration, industrial and domestic fuel combustion. Extensive use of fossil fuels in urban transportation and industry has led to significant increases in gaseous pollutant concentrations, mainly through combustion.

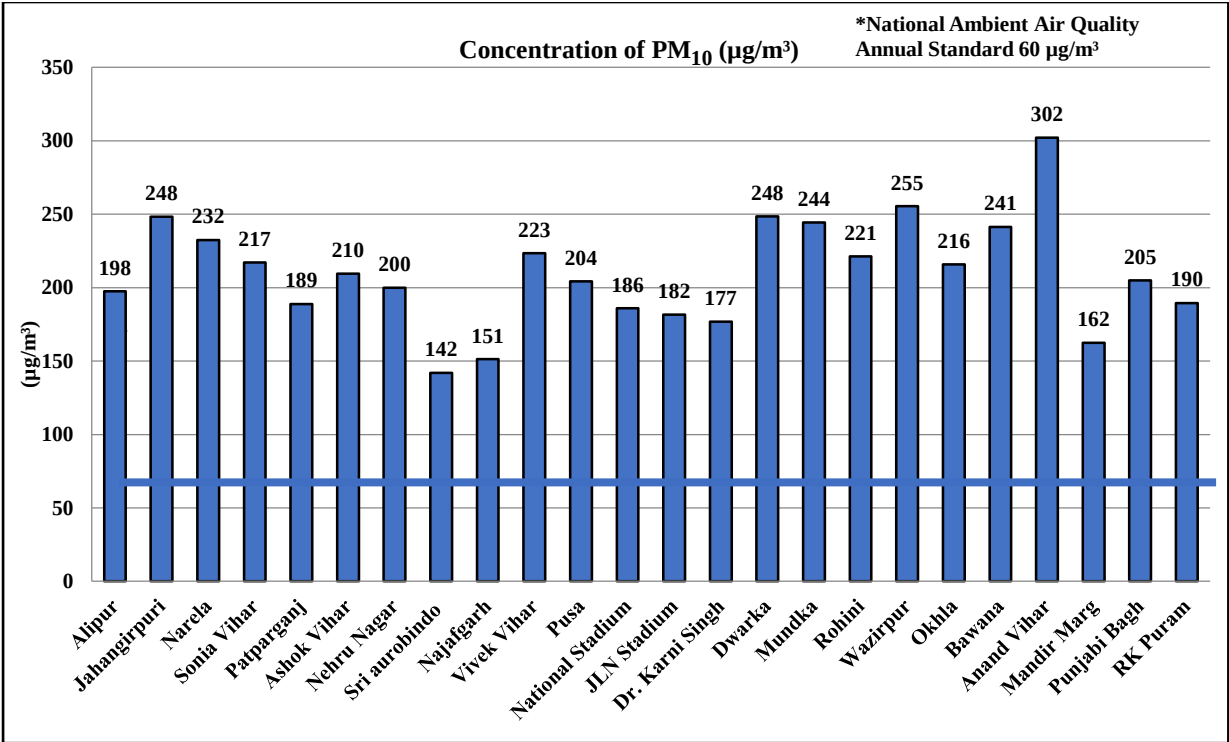
One of the other major gaseous pollutants over the northern India is agricultural residue burning. The Trend of Concentration of various Gaseous Pollutants in Delhi during 2021-22 is shown in Graph2.

Graph2: Variation in Concentration (City Average) of Gaseous Pollutants in Delhi 2021-22



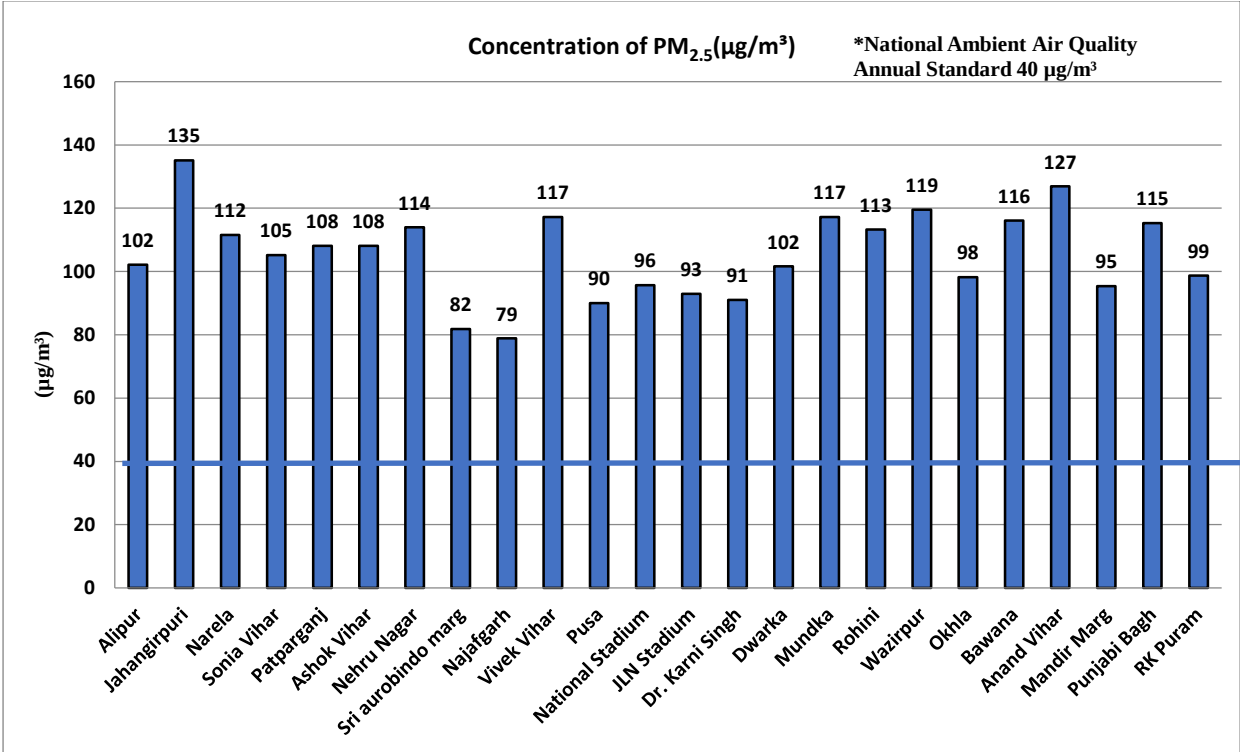
7.1.3 Particulate Matter (PM₁₀):-

The Concentration of PM₁₀ annual average varied between 142 µg/m³ at Sri Aurobindo to 302 µg/m³ at Anand Vihar, against the annual prescribed standard of 60 µg/m³. The concentration of more than 200 µg/m³ was observed at 15 locations, and only 2 locations shows concentration less than 160 µg/m³ i.e Sri Aurobindo Marg and Najafgarh. Aurobindo Marg CAAQMS is located inside the campus of Hospitals with thick foliage, and the major roads are relatively away, and vehicular emissions are not directly impacting the locations. Najafgarh CAAQMS is located outside the city limits. The city average observed was 210 µg/m³.



7.1.4 Particulate Matter (PM_{2.5}):-

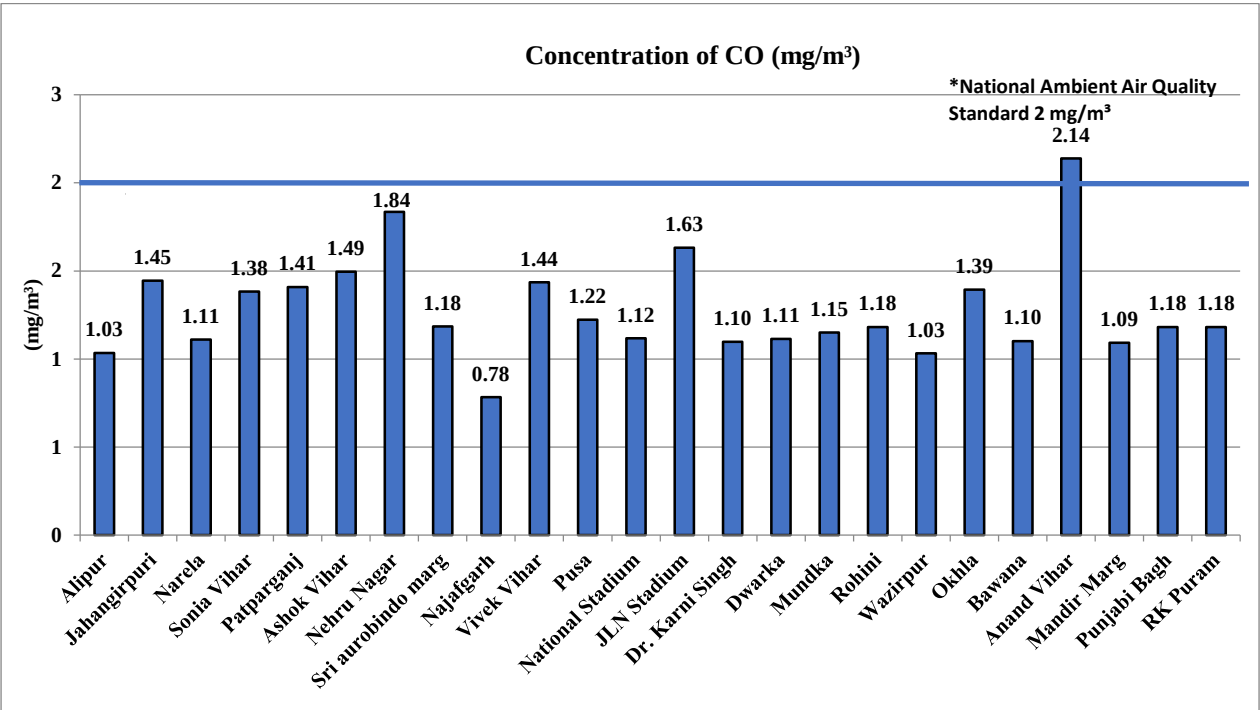
The concentration of PM_{2.5} varied between 79 µg/m³ at Sri Najafgarh to 135 µg/m³ at Jahangirpuri, against the annual prescribed standard of 40 µg/m³. A concentration of more than 100 µg/m³ was observed at 15 locations. 2 locations showed a value less than 90 µg/m³, i.e., Sri Aurobindo Marg and Najafgarh. Both CAAQMS are located inside hospitals' campuses with thick foliage, and the major roads are relatively away, and vehicular emissions not directly impacting the locations. The city average for the year in question is 106 µg/m³.



7.1.5 Carbon Monoxide (CO)

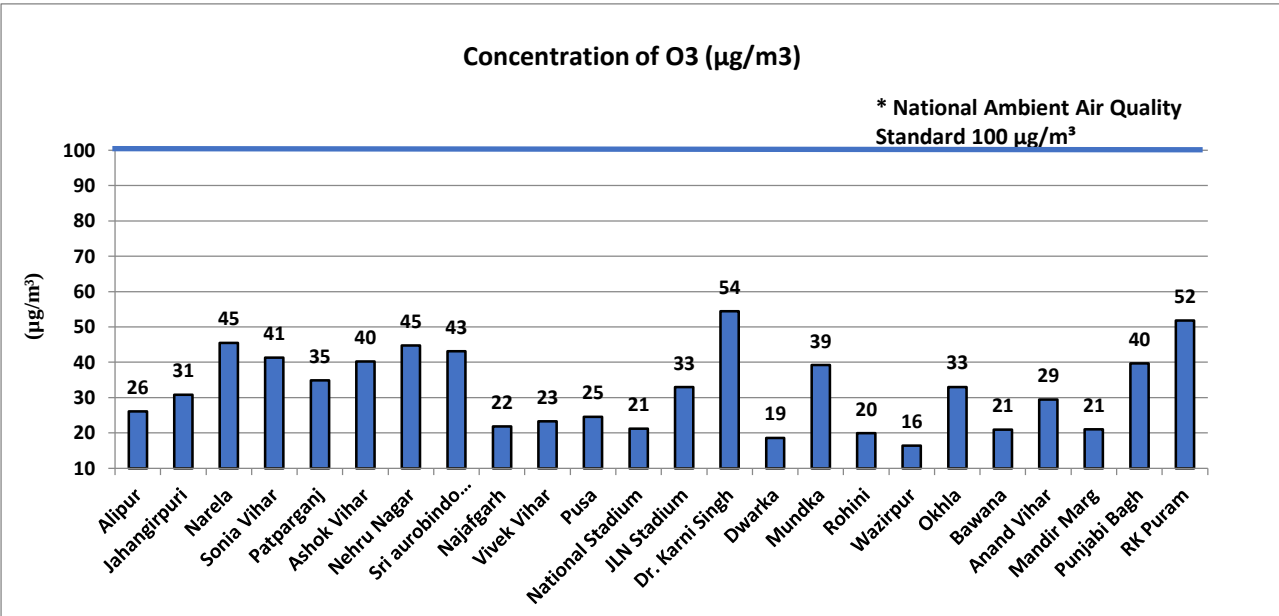
The Concentration of CO varied between 0.78 mg/m³ at Najafgarh to 2.14 mg/m³ at Anand Vihar against the prescribed standard for 8 hours of 2 mg/m³. The maximum concentration of

CO was observed at Anand Vihar, which is a hotspot influenced by vehicular emission and trans-state movement of pollutants. Open waste burning also contributes significantly.



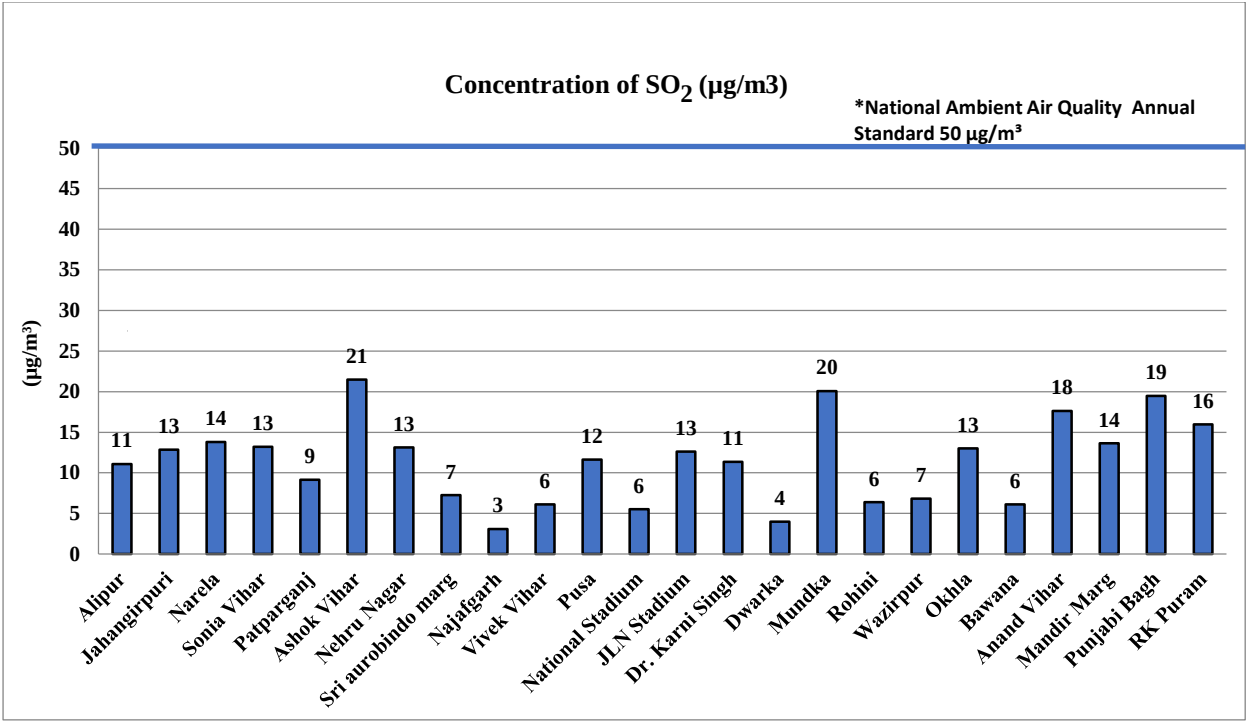
7.1.6 Ozone (O₃)

The prescribed standard for Ozone is one hour and eight hours based; the hourly average is generally met at all the locations except for few hours, in the summer afternoon. The range of O₃ varied between 16 µg/m³ at Wazirpur to 54 µg/m³ at Dr. Karni Singh Shooting Range against the 8-hour prescribed standard of 100 µg/m³. Eleven locations show value less than 30 µg/m³ though hourly value exceed prescribed standard sometimes, mainly in summer season.



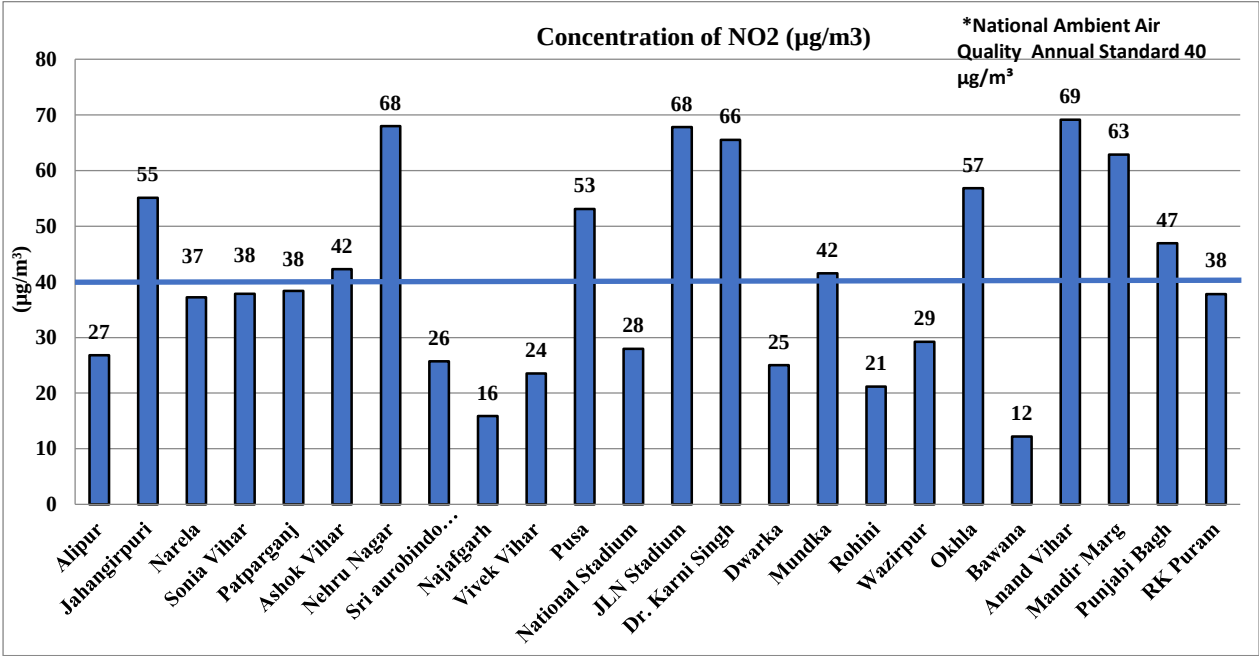
7.1.7 Sulphur Dioxide (SO₂):-

The concentration of SO₂ varied between 3 µg/m³ at Najafgarh to 21 µg/m³ at Ashok Vihar against the annual prescribed standard of 50 µg/m³.The concentration of Sulphur Dioxide is always well within the prescribed limits of (50 µg/m³).



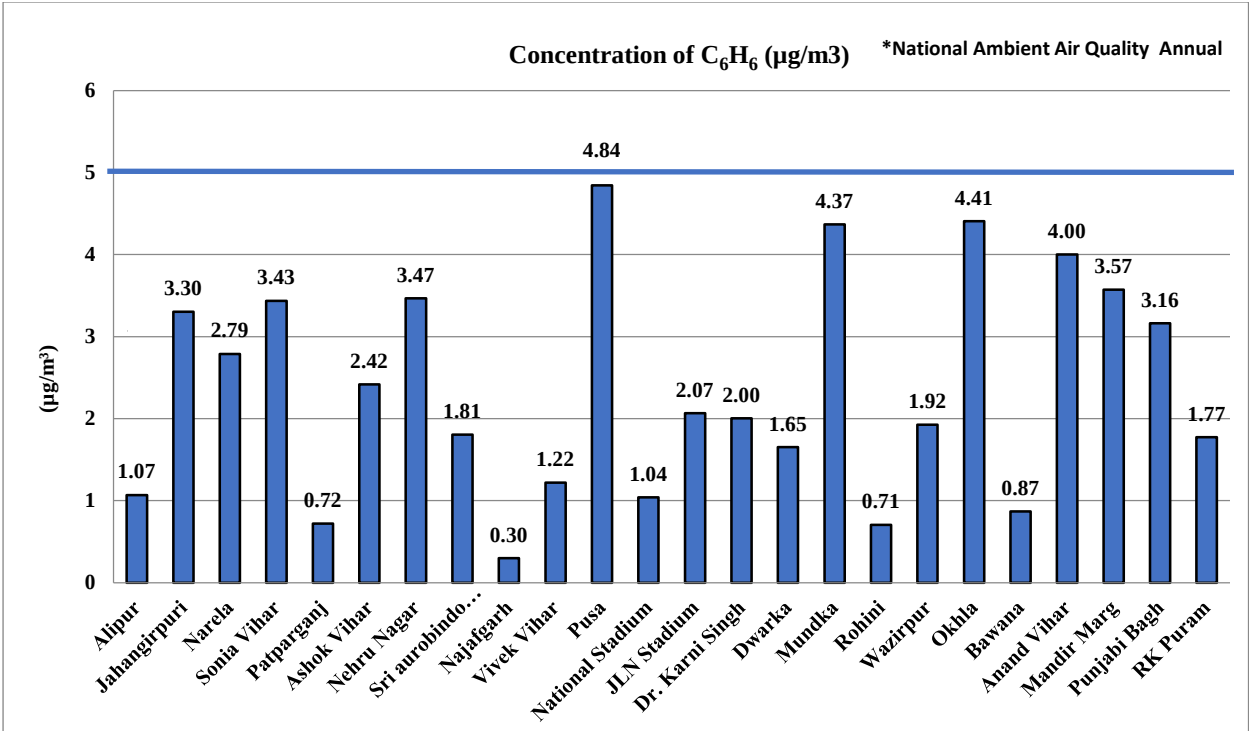
7.1.8 Nitrogen Dioxide (NO₂):-

The average annual concentration of NO₂ varied between 12 µg/m³ at Bawana to 69 µg/m³ at Anand Vihar against the annual prescribed standard of 40 µg/m³. The 11 monitored locations show concentrations exceeding the prescribed standard (40 µg/m³), which may be attributed to vehicular emission.



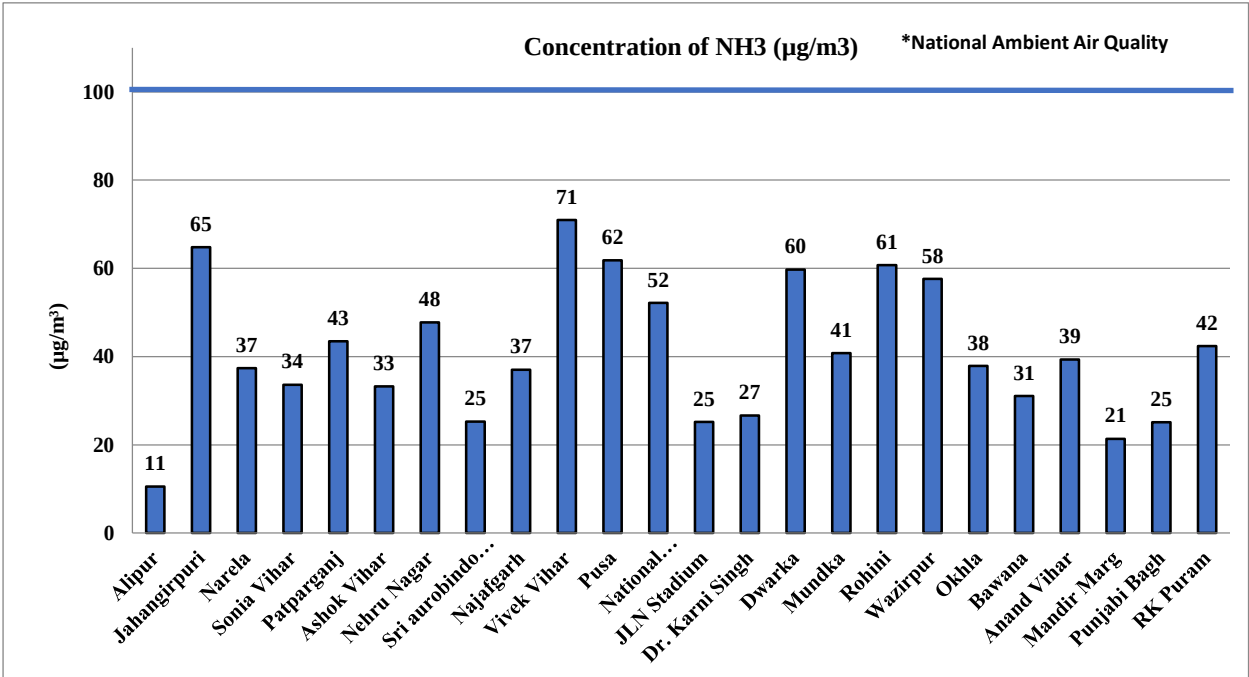
7.1.9 Benzene (C₆H₆):-

The Concentration of Benzene varied from 0.30 µg/m³ at Najafgarh to 4.84 µg/m³ at Pusa against the annual prescribed standard of 5 µg/m³.



7.1.10 Ammonia (NH₃):-

The average annual concentration of NH₃ varied between 11 µg/m³ at Alipur to 71µg/m³ at Anand Vihar against the annual prescribed standard of 100 µg/m³.



7.2 Industrial, Incinerator, and Waste to energy plant

Stack monitoring is conducted by DPCC Air Lab at the request of the units for their Self-Assessment and by the concerned cell. A total of 219 source emissions were monitored to determine the emissions from various industries. These consist of Boilers, Furnaces and Ovens etc. The other monitored units are Buffing units, Dal Mills and Flour Mills provided with Air Pollution Control Systems. Delhi city has three Waste to Energy Plants which was monitored jointly by DPCC and CPCB.

7.3 Conclusion

Particulate exceeded the prescribed standard and Gaseous Pollutant achieved the standard. However, some exceedances were observed in concentrations of NO2 and Ozone. It is observed that the pollutants are showing the downward trend.

7.4 Ambient Noise Quality: -

Noise pollution, unwanted or excessive sound that can have deleterious effects on human health, wildlife, and environmental quality. Noise pollution is commonly generated inside many industrial facilities and some other workplaces, but it also comes from highway, railway, and airplane traffic and from outdoor construction activities. Noise pollution is one of several environmental pollutions across the world. It can be described as the propagation of noise with a harmful impact on the physiological and psychological lives of humans or animals. DPCC recently strengthened the Noise Monitoring Network in Delhi with 31 Noise monitoring stations. These stations were installed in different land-use areas to assess the real time noise levels. Seven stations are situated in silence zone which includes educational institutions and hospitals, Eleven station is situated in a commercial zone which includes markets and stadiums, Eight stations are situated in a residential zone and five stations is situated in the industrial area. The map of Real Time Ambient Noise Monitoring stations is shown in fig 1.

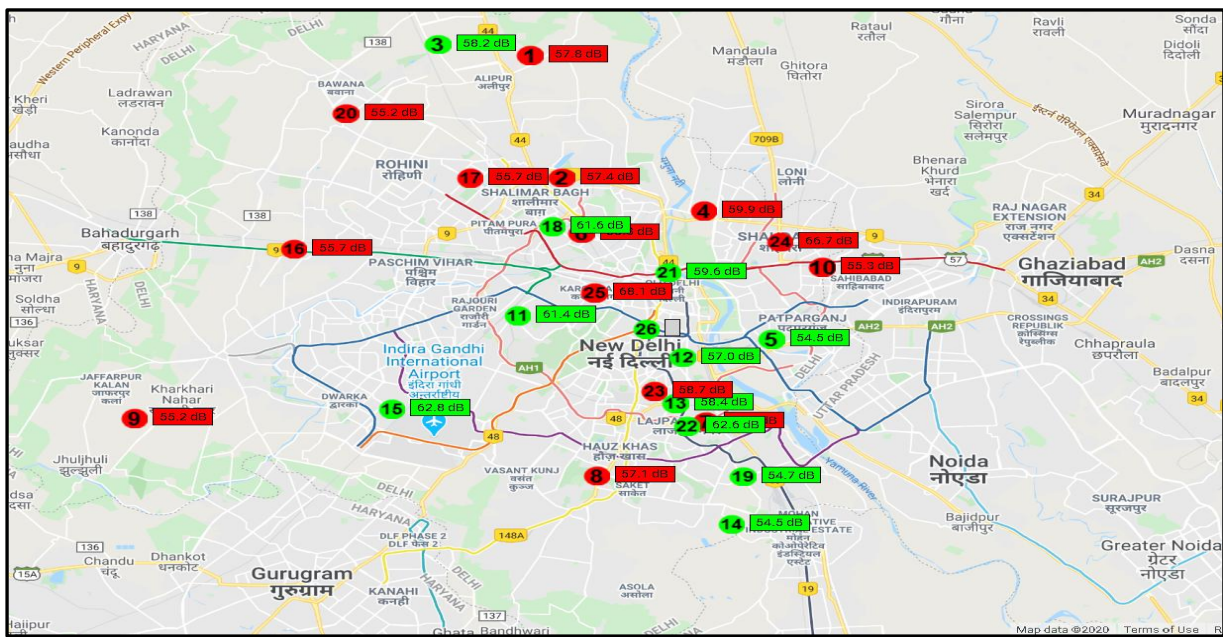


Figure 1. Map of Ambient Noise Monitoring Installed in Delhi.

Delhi city has one of the highest vehicular density in India and more than 30,000 kms. of road length exist in 1484 sq. km. geographical area of Delhi which induce the Ambient Noise of the city. DPCC installed 31 Noise Monitoring Stations (05 NMT in the month of October 2014 and 26 NMT in the month of June 2020) in different land use area of Delhi. Analysis of these data shows that the Ambient Noise Level exceeded in all land use areas except industrial areas.

Table 1 List of 31 Real Time Ambient Noise Monitoring Stations across Delhi

S.No.	Location Name	Zone/Area	Day (6 AM to 10 PM) Standard in dB(A)	Night (10 PM to 6 AM) Standard in dB(A)
1	Alipur	Silence Zone	50	40
2	Sri Aurobindo Marg	Silence Zone	50	40
3	Najafgarh	Silence Zone	50	40
4	Rohini	Silence Zone	50	40
5	Poot Khurd Bawana	Silence Zone	50	40
6	Mandir Marg	Silence Zone	50	40
7	R.K. Puram	Silence Zone	50	40
8	Jahangirpuri	Residential Area	55	45
9	Narela	Industrial Area	75	70
10	Sonia Vihar	Residential Area	55	45
11	Patparganj	Industrial Area	75	70
12	Ashok Vihar	Residential Area	55	45
13	Nehru Nagar	Residential Area	55	45
14	Vivek Vihar	Residential Area	55	45
15	PUSA	Industrial Area	75	70
16	Mundka	Residential Area	55	45
17	Wazirpur	Industrial Area	75	70
18	Okhla	Industrial Area	75	70
19	IMD, Lodhi Road	Residential Area	55	45
20	Punjabi Bagh	Residential Area	55	45
21	National Stadium	Commercial Area	65	55
22	J.L.N Stadium	Commercial Area	65	55
23	Dr. Karni Singh Shooting Range	Commercial Area	65	55
24	Dwarka	Commercial Area	65	55
25	Kashmere Gate	Commercial Area	65	55
26	Lajpat Nagar	Commercial Area	65	55
27	Shahdara	Commercial Area	65	55
28	Karol Bagh	Commercial Area	65	55
29	Connaught Place	Commercial Area	65	55
30	Anand Vihar	Commercial Area	65	55
31	Civil Lines	Commercial Area	65	55

Alipur

The ambient noise levels in the month of April, November, December-2021 and in January, February & March-22 are showing 100% exceedance of notified standards during day time and night time both. The noise levels in the month of July, September, October-2021 are showing 100% exceedance during night time. The noise levels in the month of May, June, August-2021 are showing exceedance to notified standards either at day or night time.

Ashok Vihar

The ambient noise levels for the months of April to December -2021 and in January -2022 are showing 100% exceedance of notified standards during day time and night time both. The noise

levels in the month of February and March -2022 are showing 100% exceedance during night time.

Connaught Place

The noise levels in the month of September, October, November, December-2021 are showing 100% exceedance during night time. The noise levels for the months of April to August-2021 & January to March-2022 are showing exceedance to notified standards either at day or night time.

Dr. Karni Singh Shooting Range

The noise levels in the month of May, July, August, September, October-2021 and January-2022 are showing exceedance to notified standards either at day or night time.

Dwarka

The noise levels for the months of April to August, October to December-2021 and January to March-2022 are showing 100% exceedance during night time. The noise levels in the month of September is showing exceedance to notified standards either at day or night time.

IMD, Lodhi Road

The ambient noise levels for the months of May, June-2021 and January to March-2022 showing 100% exceedance during both day & night time. The noise levels for the months of April, July to December-2021 are showing 100% exceedance during night time.

Jahangirpuri

The ambient noise levels for the months of June to September, November to December-2021 and January to March-2022 are showing 100% exceedance during both day & night time. The noise levels in the month of October-2021 is showing 100% exceedance during night time. The noise levels in the month of May-2021 is showing exceedance to notified standards either at day or night time.

JLN Stadium

The noise levels for the months of April to December-2021 and January to March-2022 are showing exceedance to notified standards either at day or night time.

Karol Bagh

The ambient noise levels for the months of July, August, September, October, November, December -2021 and February, March-2022 are showing 100% exceedance during both day & night time. The noise levels in the month of May and June-2021 are showing 100% exceedance during night time. The noise levels for the months of April-2021 and January-2022 are showing exceedance to notified standards either at day or night time.

Kashmere Gate

The noise levels for the months of April to June, August to December-2021 and January to March-2022 are showing 100% exceedance during night time. The noise levels in the month of July-2021 is showing exceedance to notified standards either at day or night time.

Laipat Nagar

The noise levels in the month of April-2021 to March-2022 are showing exceedance to notified standards either at day or night time.

Mundka

The noise levels in the month of February and March-2022 are showing 100% exceedance during both day & night time. The noise levels for the months of April to June, October to December-2021 & January-2022 are showing 100% exceedance during night time. The noise levels in the month of July, August, September-2021 are showing exceedance to notified standards either at day or night time.

Najafgarh

The noise levels in the month of May, June, September-2021 are showing 100% exceedance during both day & night time. The noise levels in the month of April, July, August, October to December-2021 and January to March-2022 are showing 100% exceedance during night time.

Narela

The noise levels in the month of April, May, July, August, September-2021 and February-2022 are showing exceedance to notified standards either at day or night time.

National Stadium

The noise levels in the month from April-2021 to March-2022 are showing exceedance to notified standards either at day or night time.

Nehru Nagar

The noise levels in the month of March-2022 is showing 100% exceedance during both day & night time. The noise levels for the months of April to June, August to December-2021 and January, February-2022 are showing 100% exceedance during night time. The noise levels in the month of July-2021 is showing exceedance to notified standards either at day or night time.

Okhla

The noise levels in the month of July-2021 is showing exceedance to notified standards either at day or night time.

Patparganj

The noise levels for the months of July to November-2021 is showing exceedance to notified standards either at day or night time.

Pooth Khurd Bawana

The noise levels for the months April-2021 to March-2022 are showing 100% exceedance during both day & night time.

Pusa

The noise levels in the month of August, September, October-2021 and January-2022 are showing exceedance to notified standards either at day or night time.

Rohini

The noise levels for the months April-2021 to March-2022 are showing 100% exceedance during both day & night time.

Shahdara

The noise levels for the months of June to December-2021 and January, February-2022 are showing 100% exceedance during both day & night time. The noise levels in the month of April, May-2021 & March-2022 are showing 100% exceedance during night time.

Sonia Vihar

The noise levels in the month of April-2021 are showing 100% exceedance during both day & night time. The noise levels for the months of May-2021 to March-2022 are showing 100% exceedance during night time.

Sri Aurobindo Marg

The noise levels for the months of April-2021 to March-2022 except July and October-2021 are showing 100% exceedance during day time and night time both. The noise levels in the month of July-2021 is showing 100% exceedance during night time. The noise levels in the month of October-2021 is showing exceedance to notified standards either at day or night time.

Vivek Vihar

The noise levels for the months of April-2021 to March-2022 except July-2021 are showing 100% exceedance during day time and night time both. The noise levels in the month of July-2021 is showing 100% exceedance during night time.

Wazirpur

The noise levels for the months of May to September-2021 are showing exceedance to notified standards either at day or night time.

Anand Vihar

The noise levels for the months of October to December-2021 are showing 100% exceedance during day time and night time both. The noise levels for the months of April to September-2021, and January to March -2022 are showing 100% exceedance during night time.

Civil Lines

The noise levels for the months of April to July-2021 are showing 100% exceedance during night time. The noise levels for the months of August-2021 to March-2022 are showing exceedance to notified standards either at day or night time.

Mandir Marg

The noise levels for the months of May to September, October, November-2021 are showing 100% exceedance during both day & night time. The noise levels in the month of April, October-2021 and January to March-2022 are showing 100% exceedance during night time.

Punjabi Bagh

The noise levels for the months of May to July, September-2021 and February-2022 are showing 100% exceedance during both day & night time. The noise levels in the month of April, August, October to December-2021 and March-2022 are showing 100% exceedance during night time. The noise levels for the month of January-2022 is showing exceedance to notified standards either at day or night time.

R.K. Puram

The noise levels in the month of April-2021 to March-2022 are showing 100% exceedance during day time and night time both.

7.5 Conclusion

The annual noise data compared to prescribed standard shows that ambient noise levels exceeded the prescribed standards at silence zones, residential, commercial and industrial areas. The noise levels in Pooth Khurd Bawana, Rohini, and R.K. Puram Noise Monitoring Terminals (NMTs) are showing 100% exceedance during both day & night time from April-2021 to March-2022. The noise levels in JLN Stadium, Lajpat Nagar and National Stadium NMTs are showing exceedance to notified standards either in day or night time from April-2021 to March-2022. The ambient noise is indicative in nature and shows the community activity. Though, in general, it seems the primary source is vehicular noise, traffic congestions, honking of horns, congestion at improper behaviour of traffic signals, chaotic condition at parking sites. The other significant source is construction activity etc.

CHAPTER VIII

8. WASTE MANAGEMENT

8.1 Municipal Solid Waste

8.1.1 Waste Management Cell II (WMC II):

WMC II Cell deals with the matters related to STPs of DJB, CETPs, Water Treatment Plants (WTPs) of DJB, Thermal Power Plants (TPPs), Waste Processing Facilities including Waste to Energy Plants & Compost Plants, TSDF for Hazardous Waste.

8.1.2 Municipal Solid Waste Management

Municipal Solid Waste is to be managed as per the provisions of the Solid Waste Management Rules, 2016 notified by the Ministry of Environment, Forest and Climate Change (MoEF&CC), Govt. of India on 08.04.2016. Earlier Municipal Waste was to be managed as per the provisions of the Municipal Solid Waste (Management and Handling) Rules, 2000. Duties and responsibilities of Local Authorities & Village Panchayats, Urban Development Department, Waste Generators, District Magistrates and other Departments / Agencies / Ministries are mentioned in the said Rules. National Capital Territory of Delhi is having population of about 2 Crores. There are following 5 Local Authorities/ Local Bodies / Municipal Corporations in Delhi which are responsible for proper Solid Waste Management including its collection, processing & disposal:

- i. North Delhi Municipal Corporation (North DMC)
- ii. East Delhi Municipal Corporation (EDMC)
- iii. South Delhi Municipal Corporation (SDMC)
- iv. New Delhi Municipal Council (NDMC)
- v. Delhi Cantonment Board (DCB)

Municipal Solid Waste Generation, Processing / Treatment and Disposal is briefed in following Table:

Solid Waste Generation, Processing / Treatment & Disposal

S. No	Particulars	North DMC	SDMC	EDMC	NDMC	DCB	Total
1	Total Municipal solid Waste (MS W) Generation (in TPD)	4500	3600	2700	223	72	11095
2	No. of Wards	104	104	64	14 (Circles)	8	280 Wards + 14 Circles
3	Lifting / Collection of MSW (in %)	100%	100%	100%	100%	100%	NA
4	Segregation of MSW at Source (in %)	80-90% (in 37 Model Wards) 50-80% (in 29 wards)	80 – 100 % (in 37 Model Wards) 60 - 80% (in 11 Wards) 50-60% (in 6 Wards) 40-50% (in 10 Wards) 20-40% (in 17 Wards) 10-20% (in 23 Wards)	80 - 100% (in 3 Model Wards) 50% (in 61 Wards)	100 % in all 14 Circles	95-100% in Model Wards of Civilian Area 60% in Army Area	NA
5	Processing of Waste (in TPD)	1300 (WtE at Bawana)	1550 (WtE at Okhla)	0	181.12 (WtE at Okhla)	30 (WtE at Okhla)	4893 (44.1%)
	Recycling (MRFs) (in TPD)	8	60	200	9	4	
	Composting (in TPD)	1025	442	44	24.363	7	
	Bio-methanation (in TPD)	0	0	0	8.25	0	

	Subtotal (in TPD)	2333 (51%)	2052 (57%)	244 (9%)	223 (100%)	41 (57 %)	
6	Disposal of MSW in Landfill Sites	2167 (49%)	1548 (43%)	2456 (91%)	Nil	31 (43%)	6202 (55.9%)

*Excluding 425 TPD of rejects landfilled at Engineered Landfill Facility at Bawana.

Note : 1. Others (Compost Pits, OWCs etc.) : 41.575 TPD [28 Organic Waste Convertor (OWCs) (13.15 TPD) & 6 Biogas Plants (8.25 TPD) in NDMC area + 3 Composters [1 Sorting Cum Composter at Tigris Road (20 TPD) + 2 Food Waste Composters of Total Capacity of 0.175 TPD (0.125 TPD + 0.05 TPD) in DCB area

2. Most of the Five & Four Star Hotels and Major Hospitals having 50 Beds or more have installed Organic Waste Convertor.

(a) Collection, Segregation & Transportation of Municipal Solid Waste:

There are 5 Local Bodies in Delhi responsible for implementation of the Solid Waste Management Rules, 2016. Total Municipal Solid Waste generation in Delhi is 11095 Tonnes per day (TPD). For proper treatment and disposal of the municipal solid waste, waste segregation is pre-requisite and the local bodies are implementing a detailed plan of waste segregation at source, door to door collection, intermediate storage and transport facility with GPS for the segregated waste.

(b) Municipal Solid Waste Processing and Disposal Facilities:

There is one Integrated Solid Waste Management Facility at Bawana for processing of 2000 TPD of municipal solid waste having Waste to Energy Plant, Compost Plant and Engineered Sanitary Landfill. One Engineered Sanitary Land Fill is proposed to be developed by South Delhi Municipal Corporation (SDMC) at Tehkhand. An Integrated Solid Waste Management Facility for 2000 TPD was proposed to be developed by East Delhi Municipal Corporation (EDMC) in joint venture with NTPC at Ghonda Gujran however Principal Committee constituted by Hon'ble NGT has not permitted the said Facility since it was falling in the Flood Plain of River Yamuna.

(c) Waste to Energy Plants:

Delhi has 3 Waste to Energy Plants (WTE Plants) of capacity 4550 TPD at 3 different locations in Delhi namely Okhla, Ghazipur and Bawana. One New Waste to Energy Plant of capacity of 2000 TPD is under construction at Tehkhand. After commissioning of these this proposed WTE capacity of WTE Plants will increase from 4550 TPD to 6550 TPD by December, 2023.

Operational Waste to Energy Plants in Delhi

S. No	Name of Waste to Energy Plant	Existing Capacity	
		Waste Processing (in TPD)	Electricity Generation (in MW)
1.	Timarpur Okhla Waste management Company Ltd., Old NDMC Compost Site, Okhla.	1950	23
2.	East Delhi Waste Processing Company Ltd., Ghazipur	1300*	12*
3.	Delhi MSW Solutions Ltd Narela Bawana Road, Bawana	1300	24
	Total	4550	59

* Waste to Energy Plant at Ghazipur was under revamp.

Waste Handling Concepts in WTE Plants in Delhi

Okhla WTE Plant	SDMC provides MSW at the WTE Plant. The WTE Plant processes MSW for RDF making and production of Electricity. Compost is also produced from the Organic Bio-degradable fraction of MSW.
Bawana WTE Plant	MSW is collected from the House Holds by the company / firm which is operating the WTE Plant & collected MSW is transported to the Integrated MSW Management Facility at Bawana for processing, Composting, Electricity production through WTE Plant and disposal of inerts / rejects at the Engineered Sanitary Landfill (SLF).
Ghazipur WTE Plant	EDMC provides MSW at the WTE Plant. The WTE Plant processes MSW for RDF making and production of Electricity.

The Waste to Energy Plants (WTE Plants) use combustible fraction of MSW and Refused Derived Fuel (RDF) and generate electricity.

Inspection & Monitoring of Existing Operational Waste to Energy Plants in Delhi :

As per the orders dated 09.10.2017 of Hon'ble National Green Tribunal in OA No. 22/2013 (THC) & 27.09.2018 in OA No. 640/2018 (earlier OA No. 22/2013) in the matter of Sukhdev Vihar Residents Welfare Association Vs GNCTD and Ors., joint inspections of all the above

mentioned 3 operational WTEs in Delhi were being carried out by a team consisting of representatives of CPCB, DPCC, MOEF&CC and IIT, Delhi once in four months.

Monitoring of the stack emissions and Ambient Air Quality was also carried out by CPCB during the joint inspections and report is submitted by CPCB to the Hon'ble NGT from time to time.

Online Continuous Emission Monitoring System (OCEMS) has been installed by all the 3 operational Waste to Energy Plants in Delhi and the same are also connected to the server of CPCB & DPCC.

Based on the Compliance Reports of Waste to Energy Plants in Delhi submitted by CPCB to Hon'ble NGT in the abovementioned cases, DPCC imposed total Environmental Compensation of Rs. 40 Lakh on the 3 operational WTEs in Delhi. The said amount of Environmental compensation has been received from 3 WTEs.

Gap in MSW Generation & Processing and Proposed Facilities to fill the Gap:

Generation (in TPD)	Processing/ Recycling (MRFs)/ Composting/ Bio-methanation (in TPD)	Gap (in TPD)
11095	4893	6202

Remediation of Legacy Waste (Old MSW):

There are 3 Dumpsites at Ghazipur, Bhalaswa and Okhla in Delhi where Municipal Solid Waste have been dumped and there was legacy waste of 28 Million Tons as mentioned in the orders dated 17.07.2019 of Hon'ble National Green Tribunal in OA No. 519 / 2019 in the matter of News item published in "The Times of India" Authored by Jasjeev Gandhiok & Paras Singh Titled "Below mountains of trash lie poison lakes" and OA No. 386/2019 in the matter of "Centre for Wildlife and Environment Litigation" Vs Union of India &Ors."

In the said case Hon'ble National Green Tribunal has passed detailed order regarding Disposal of 'Legacy' Waste dumped at Bhalaswa, Ghazipur and Okhla Dumpsites and given various directions. Hon'ble NGT has directed the Municipal Corporations to go for bio mining using trommels instead of capping of the dump sites at Bhalaswa, Ghazipur and Okhla. The estimated cost to clear the above three dump sites at Delhi may be approx. Rs. 250 Crores as given below

EDMC - Rs. 125 Crores

North MCD - Rs. 75 Crores

SDMC - Rs. 50 Crores

As directed by the Hon'ble NGT, the Committee headed by Chief Secretary, Govt. of NCT of Delhi has been constituted vide order dated 25.07.2019. The ESCROW accounts for North DMC, East DMC and South DMC have been opened. Regular meetings of the Committee headed by Chief Secretary are held to review the progress in the said matter.

Out of Rs. 250 Crores, an amount of Rs. 245 Crores have been contributed by the DPCC, DMCs, DCB & NDMC. DCB has deposited only 15 Crores (out of Rs. 20 Crores) and filed an application before the Hon'ble Supreme Court for exemption of Rs. 5 Crores to be deposited to North DMC, because DCB is not dumping its MSW at Bhalaswa landfill site.

The implementation of the project has been started w.e.f. 01.10.2019. Inert material generated during the process is about 60% to 70% by weight or 40% by volume of the waste being processed, which needs to be disposed of in a scientific manner. It is a major challenge before the municipal corporations to make suitable land available for disposal of this inert material particularly since the availability of land is extremely scarce in Delhi. SDMC on behalf of all the three DMCs has moved an application to Forest Department for procurement of space in four empty pits of Bhatti mines for temporarily dumping inert materials generated due to bio-mining.

In pursuance of the Order dated 23.03.2020 passed by Hon'ble National Green Tribunal in above mentioned case and Integrated Special Purpose Vehicle (SPV) was constituted vide order dated 14.07.2020 for the scientific management, processing and disposal of Legacy Waste. The said committee is headed by Chief Secretary and having Pr. Secy. (Env.), Commissioners of SDMC, EDMC & North DMC, Secy. (UD Deptt), Sh. Manish Singh (IAS, Director, Swatch Bharat, Bhopal) and Sh. Vijay Nehra (IAS, Comm., Municipal Corp., Ahmedabad) as members.

As per the said order, a Joint Committee comprising representatives of CPCB, NEERI & IIT Delhi has assessed the Amount of Damage to Environment due to three dumpsites in Delhi as mentioned in following table:

S. No.	Name of the Municipal Corporation	Name of the Dumpsite	Damage Cost assessed, (Rupees)
1.	North DMC	Bhalaswa	155.9 Crore
2.	EDMC	Ghazipur	142.5 Crore
3.	SDMC	Okhla	151.1 Crore
Total			449.5 Crore

Hon'ble NGT has disposed off the above mentioned case vide order dated 29.01.2021 with following directions:

"Accordingly, we direct the NCT Delhi and the Municipal Corporations concerned to coordinate and execute the work of remediating the legacy waste dump sites for enforcing the rule of law and protection of environment and public health, expeditiously in terms of earlier orders of this Tribunal. Due care has to be taken for preventing fire accidents on the landfill sites and maintaining stability of the dumps. The Chief Secretary, Delhi, may continue to hold meetings for coordination with all the stake-holders, at least once in a month, as earlier directed to device ways and means to expedite the pending work, including coercive measures against those responsible for delay. The CPCB is at liberty to recover the compensation already assessed, with further compensation for continuing damage till compliance of law, following due process of law. The amount of recovered compensation be spent on restoration of environment in Delhi."

As per the Action Plans submitted by EDMC, North DMC & SDMC to the Hon'ble NGT, following are the timelines for remediation of legacy waste at three dumpsites in Delhi

Dumpsite	Timeline for 100% remediation
Ghazipur	December, 2024
Bhalaswa	December, 2023
Okhla	December, 2023

The Status of Bio-Mining of Legacy Waste at 3 Dumpsites at Okhla, Ghazipur & Bhalaswa in Delhi (as on 31.03.2022) is given in following Table:

S. No.	Name of the Dumpsite	Quantity of Legacy Waste Dumped (As on 17.07.2019)	Total Quantity of Legacy Waste Processed (As on 31.03.2022)	No. of Trommels Operational
1	Ghazipur	140 Lakh Ton	9.45 Lakh Ton (6.75%)	21
2	Okhla	60 Lakh Ton	13 Lakh Ton (23.63%)	25
3	Bhalaswa	80 Lakh Ton	23.20 Lakh Ton (29%)	52
Total		280 Lakh Ton	45.65 Lakh Ton (16.3 %)	98

NGT Case OA No. 606 / 2018 regarding Compliance of Municipal Solid Waste Management Rules, 2016.

This NGT case covered almost all the important matters / issues related to control of pollution and management of various types of waste including Solid Waste Management. In compliance of the orders of Hon'ble Tribunal in the said matter passed from time to time, meetings were taken by the Chief Secretary, GNCTD from time to time and compiled Information / Action Taken Reports of Govt. of NCT of Delhi were submitted to Hon'ble NGT.

Vide order dated 14.12.2020 it was directed by the Hon'ble NGT that henceforth the present matter will primarily deal with the issues of solid waste management only, other issues being subject matter of separate proceedings. Meetings of Chief Secy., were organized & held from time to time to review the Solid Waste Management in Delhi and progress of various projects / action taken by various Local Bodies to fill the gap in Solid Waste Management.

Compiled Information / Action Taken Reports & Quarterly Reports of Govt. of NCT of Delhi were submitted to CPCB as per the orders of Hon'ble NGT.

Directions u/s 5 of Environment (Protection) Act, 1986 for enforcement of provisions of Solid Waste Management (SWM) Rules, 2016 regarding Bio Mining of legacy waste was issued by DPCC on 23.03.2021.

Regular meetings held for review of Solid Waste Management in Delhi resulted in:

- Improvement in Segregation of Waste at Source
- Improvement in Bio-mining of Legacy Waste at 3 Dumpsites at Ghazipur, Bhalaswa & Okhla [22.58 Lakh Ton on 15.03.2021 ((Trommels–51) to 45.65 Lakh Ton on 31.03.2022 (Trommels –98)]
- 5 New Decentralised Composter Plants commissioned at various locations in 2021-2022.

Prevention of Fire Incidents at the Dumpsites

Dumpsites at Ghazipur and Bhalaswa were inspected from time to time and Environmental Compensation of Rs 40 Lakh was imposed on EDMC w.r.t Fire Incidents on 28.03.2021/30.03.2021. EDMC & North DMC were also directed to take immediate necessary action for prevention of fire & ensure that such fire incident does not occur in future at the Dumpsites.

As per the Rule 18 of the Solid Waste Management Rules, 2016, “All industrial units using fuel and located within one hundred km from a solid waste based refused derived fuel plant shall make arrangements within six months from the date of notification of these rules to replace at least five percent of their fuel requirement by refused derived fuel so produced.

It is pertinent to mention that Delhi Pollution Control Committee with the approval of Hon’ble Lt. Governor, GNCTD has issued Notification on 29.06.2018 regarding “**List of Approved Fuels in The National Capital Territory of Delhi**”.

As per the said Notification Refuse Derived Fuel is permitted to be used only for Waste-to-Energy Plants. In view of the said Notification, Refuse Derived Fuel is not permitted to be used by the Industrial Units in National Capital Territory of Delhi.

Urban Development Department, Govt. of NCT of Delhi, has notified State Policy and Solid Waste Management Strategy for Delhi on 03.11.2017, as per Rule, 11 of the Solid Waste Management Rules, 2016.

Govt. of NCT of Delhi, has also notified Bye –Laws for Management of Solid Waste on 15.01.2018 in respect of all the 5 Urban Local Bodies/ Municipal Bodies in Delhi. In this Bye – Laws there is provision of levying user fee and penalty charges.

Groundwater samples were collected near the Ghazipur, Bhalaswa & Okhla Dumpsites and also near the Engineered Sanitary Landfill at Bawana in December, 2021. Concentration of various physico-chemical parameters including heavy metal concentration and microbiological parameters were determined in groundwater samples.

Annual Report on Solid Waste Management was prepared by DPCC for the Year 2021– 2022 in Form-V and submitted to CPCB & Ministry of Housing & Urban Affairs (MoUHA) on 29.07.2022.

8.2 Construction and Demolition Waste Management

Construction and Demolition Waste is required to be managed as per the provisions of the Construction and Demolition Waste Management Rules, 2016 notified by MoEF&CC vide Notification Dated 29.03.2016. These Rules came into force with effect from 27.04.2016 i.e. date of publication in Gazette of India. Earlier Construction and Demolition Waste was covered under the then existing Municipal Solid Waste (Management and Handling) Rules, 2000.

C & D Waste Management in Delhi

There are following 5 Local Bodies / Municipal Corporations which are mainly responsible for the proper management of the Construction and Demolition Waste (C & D Waste) and implementation of the Construction and Demolition Waste Management Rules, 2016 in NCT of Delhi. As per the Annual Reports submitted by the Local Bodies in Delhi about 3448.53 TPD of Construction and Demolition Waste (C&D Waste) is generated in Delhi:

- (i) North Delhi Municipal Corporation (North DMC)
- (ii) East Delhi Municipal Corporation (East DMC)
- (iii) South Delhi Municipal Corporation (South DMC)
- (iv) New Delhi Municipal Council (NDMC)
- (v) Delhi Cantonment Board(DCB)

Separate collection and transport infrastructure of C&D Waste has been set up under which the C&D Waste is collected at 257 designated sites identified by the 3 Municipal

Corporations(Erstwhile North DMC, EDMC & SDMC), NDMC & DCB and briefed in following Table :

C&D Waste Generation & Designated Collection Centres in Delhi

S. No.	Name of Local Body	Quantum of C & D Waste Generation (in TPD)	No of Designated Collection Centres for C & D Waste
1	North DMC	1237.96	102
2	East DMC	1005.47	64
3	South DMC	1126.96	65
4	NDMC	74.72	25
5	Delhi Cantonment Board (DCB)	3.42	1
	Total	3448.53 TPD	257

Separate Collection and Transport Infrastructure for C & D Waste has been set up under which the C & D Waste Collection at ear marked sites identified by 3 Municipal Corporations (Erstwhile North DMC, East DMC & South DMC), NDMC & Delhi Cantonment Board (DCB) and the same is transported to the 4 Existing Construction and Demolition Waste Processing/ Recycling Facility/ Plants Functioning in Delhi. The Capacity of 05 Existing Construction and Demolition Waste Processing / Recycling Facility is 5150 TPD. Five Construction and Demolition Waste Processing Facilities operating in Delhi are given in following Table:

Construction and Demolition Waste Processing Facilities functioning in Delhi

S. No.	Location of C& D Waste Processing Facility	Name of Operator	Local Body/ Authority	Year of Commissioning	Plot Area (in Acres)	Capacity (in TPD)
1	Jahangirpuri (Burari)	M/s IL&FS Environmental Infrastructure and Services Limited	North DM C	2009	7	2000
2	Shastri Park	M/s IL&FS Environmental Infrastructure and Services Limited	East DMC	2016	2.5	1000
3	Mundka (DMRC Site)	M/s IL&FS Environmental Infrastructure and Services Limited	DMRC	2018	2.95	150

4	Pocket I-2, Industrial Area Rohini, Phase V at Ranikhera	M/s Indo Enviro Integrated Solutions Limited)	North DMC	2021	5.89	1000
5.	Bakkarwala Village	M/s Rise Eleven Delhi Waste Management Co.	South DMC	2020	5	1000
	Total					5150

In these processing facilities, Paver Blocks, Kerb Stones, Bricks, Aggregates, Sand and Soil of BIS standards are being produced out of the C&D waste which is further used in the infrastructure projects, thus fresh requirement of natural resources is minimized. With the existing and proposed processing facilities, it is expected that the entire C&D waste generated in Delhi will be managed properly in a scientific manner.

Proposed New Construction and Demolition Waste Processing Facilities in Delhi

S. No	Location of Proposed C& D Waste Processing Facility	Local Body / Authority	Capacity (in TPD)	Remarks
1.	Tekhhand Okhla	South DMC	1000	DDA is in advance stage for allotting land for C& D Waste Processing Facility

Processing of Construction and Demolition Waste consists of:

-  Receiving of Construction and Demolition Waste at site
-  Weighing (weigh bridge provided near gate/office)
-  Grading (loose soil to landfill and road building)
-  Sizing unit/breaking/processing
-  Output [different sizes of Aggregates, used in making of Paver Blocks, Kerb Stones , Tiles , Brick , Road building, RMC (Ready Mix Concrete) and Sand and Soil of BIS standards for uses in various purposes.

Waste received and processed in these facilities is given in the table below:

Sl No.	Description	Quantum (Year 2021-22)				
		Jahangirpuri (Burari)	Shastri Park	Bakkarwala	Mundka (DMRC)	Ranikhera
1	C & D Waste Received	451858 MT	366997 MT	259643 MT	22823 MT	22885 MT
2	Non-Structural Concrete Aggregate	9323 MT	Nil	46296 MT	Nil	Nil
3	Manufactured Sand	16452 MT	2098 MT	24929	3012	400
4	Ready Mix Concrete	Nil	Nil	7721	Nil	Nil
5	Paving Blocks/ Tiles	1462885 Nos	Nil	6494	5683 sqm.	Nil
6	Granular Sub Base (GCB)	37747 MT	33550 MT	Nil	Nil	960
7	Soil	Nil	23690 MT	173454 MT (others)	5994 Tons (Aggregate)	Nil
8	Cement Concrete Bricks	Nil	464220 Nos			Nil

Ministry of Housing and Urban Affairs, Govt. of India, (MoHUA) had fixed the target of 7,76,435 MT for use of Construction and Demolition recycled materials by various Govt. Departments & Private Agencies in the Financial Year 2021-22.

Intake Quantity, Processed Quantity & off-take of C&D Recycled Products from the Existing 5 C & D Waste Processing Facilities in Delhi [at Jahangirpuri (Burari), Shastri Park, Mundka and Bakkarwala] for the Financial Year 2021-2022

C&D Waste Intake Quantity(Lakh MT)	C&D Waste Processed Quantity (Lakh MT)	Off-take		
		Off-take by Govt. Departments (Lakh MT)	Off-take by Private Parties (Lakh MT)	Total Off-take (Lakh MT)
10.30	8.28	3.25	4.51	7.76

Action Taken by DPCC and main Achievements in respect of C & D Waste Management in Delhi:

Monitoring is being done by DPCC & Inspections of C & DD Waste Processing Facilities are carried out from time to time. Based on the Inspections, Environmental Compensation of Rs Five Lakh was imposed on C&D Waste Processing Facilities at Jahangirpuri (Burari) in 2019 and Environmental Compensation of Total Rs Ten Lakh was imposed on C&D Waste Processing Facility at Bakkarwala (Rs. Five Lakh each in January, 2021 and August, 2021). The said amount of Environmental Compensation has been deposited by the aforementioned C & D Waste Processing Facilities.

Action taken by DPCC & meetings taken by the Chief Secretary, GNCTD & Chairman, DPCC from time to time resulted in improvement in the C & D Waste management in Delhi and off take/ lifting of C& D Recycled Materials from the existing C & D Waste Processing Facilities in Delhi.

Achievements in respect of C & D Waste Management in Delhi:

-  Total Capacity of C & D Waste Processing Facilities in Delhi increased from 4150 TPD to 5150 TPD by establishment of C & D Waste Processing Facility at Rani Khera of 1000 TPD capacity.
-  Besides this Additional 1000 TPD facility was proposed at Tehkhand.
-  Action taken by DPCC & meetings taken by the Chief Secretary, GNCTD & Chairman, DPCC from time to time resulted in improvement in the off take / lifting of C&D Recycled Materials from the existing C & D Waste Processing Facilities in Delhi at Jahangirpuri (Burari), Shastri Park, Mundka, Bakkarwala & Ranikhera.

Annual Report on Construction & Demolition Waste Management was prepared by DPCC for the Year 2021 - 2022 in Form IV and submitted to CPCB vide letter dated 29.07.2022.

8.3 Hazardous Waste

Development of Common Hazardous Waste, Treatment, Storage & Disposal Facility (TSDF) at Bawana in Delhi

In the matter of Balam Singh Rawat vs Govt. of NCT of Delhi & Ors, Hon'ble NGT directed vide order dated 30.03.2015 that the TSDF Project is to be developed by DSIIDC in collaboration with

DPCC. Accordingly, 14 Acres of land at Bawana was procured by the Environment Department, Govt. of NCT of Delhi from the North Delhi Municipal Corporation (North DMC) and the same was handed over to DSIIDC for development of TSDF for Hazardous Waste. Subsequently the approval of Delhi Cabinet was sought for setting up of TSDF for Hazardous Waste at Bawana. DPCC made a payment of Rs. 44.10 Crore to North DMC from the Air Ambience Fund on account of cost of Land for setting up of TSDF for Hazardous Waste at Bawana. An amount of Rs. 8.05 Crores has also been given to DSIIDC as grant in aid towards 50 % of Capital cost of TSDF. TSDF will also be having Incinerator for disposal of Incinerable Hazardous Waste.

DSIIDC awarded the work of development of TSDF for Hazardous Waste at Bawana to M/s Tamil Nadu Waste Management Limited (M/s TNWML) on 30.11.2019. Concession Agreement was signed by DSIIDC & M/s TNWML on 18.12.2019. Public Hearing for Environmental Clearance for TSDF was held on 14.07.2020. MoEF&CC granted Environmental Clearance vide letter dated 23.11.2020.

Common Hazardous Waste, Treatment, Storage & Disposal Facility (TSDF) has been developed in 14 Acres Land at Bawana in Delhi by DSIIDC. Consent to operate under the Air & Water Acts and Authorisation under the Hazardous and Other Wastes (Management and Transboundary Movement) Rules, 2016 have been issued by DPCC to the Project Proponent on 04.03.2022 for Secured Land Fill (SLF), Incinerator and Associated Activities. TSDF is in operation since October, 2021.

Hazardous Waste received and treated/disposed at the TSDF at Bawana in Financial Year 2021-22 is given in following Table :

S. No.	Description	Disposal Pathway	F.Y. 2021-22
	Quantity in stock at the beginning of the year (Qty. in MT)	DLF	0
		LAT	0
		INC	0
		Total	0
	Total Quantity received (Qty. in MT)	DLF	18.402
		LAT	1147.89
		INC	1.591

		Total	1167.883
	Quantity disposed in landfills as such and after treatment (Qty. in MT)	DLF	0
		LAT	0
		Total	0
	Quantity incinerated (Qty. in MT)	INC	0
	Quantity in storage at the end of the year (Qty. in MT)	DLF	18.402
		LAT	1147.89
		INC	1.591
		Total	1167.883

*DLF- Direct Landfilling, LAT- Landfilling After Treatment, INC- Incinerable

8.4 Plastic Waste

Regarding implementation of Plastic Waste Management Rules 2016 amended till date.

-  Total plastic waste generation in Delhi: 1104.51 TPD, which is around 10 % of the total solid waste generation in Delhi. The per capita per day waste generation in Delhi is calculated to be 55.23 gram.
-  DPCC is regularly conducting inspections and in the year 2021-2022, total 25 inspections have been conducted out of which notices for closure issued to 19 nos. of units, which were found non-compliant with respect to PWM Rules. Further, EC of Rs.32, 97,500/- was imposed on these units. 18 out of 19 units have deposited EC amount of Rs.26, 97,500/-.
-  All the concerned Municipal Corporations and Delhi Cantonment Board were requested on 09.03.2021 to furnish the details as per Rule (6) of PWM for setting up of infrastructure for segregation collection, storage, transportation, processing and disposal of plastic waste and as per Rule 9 (1&2) of PWM, to provide the details of waste Management Agencies registered with the respective corporation to facilitate producer, importers and brand owners to submit EPR Action Plan.
-  There are 1854 plastic manufacturing or recycling (including multilayer, compostable) units registered with DPCC including 840 producers (Bag/Sheet/Multilayer like), 778 recyclers and 236 manufacturer. All the 840 producer industrial units were directed on 09.11.2021 to furnish EPR Action Plan.

-  CPCB has evolved and uploaded SOPs on its website in the month of March 2021 for Registration of all the Producers, Importers & Brand Owners (PIBOs) under PWM Rules 2016 (as amended). Same has been uploaded on DPCC website on 31.03.2021. The SOPs have been circulated to all the Producers, Importers, and Brand Owners PIBOs to file EPR Action Plan.
-  Awareness camps were organized in the month of March, 2021 at Bawana and Narela Industrial Areas for the plastic Industrial Areas for the plastic Industries (producers) to educate and guide them about their responsibility and regarding preparation of EPR Action Plan.
-  Ministry of Environment, Forest & Climate Change (MOEF&CC) issued draft Amendment to PWM Rules 2016, Vide Notification No. G.S.R. 169 (E) dated March 11, 2021, which was finalized and published on 12.08.2021. As per the notification dated 12.08.2021, prohibition on Manufacture, Import, Stocking, Distribution, Sale and Use of 19 Single Use Plastic items w.e.f. 1st July 2022 as follows: (i) Ear buds with plastic sticks (ii) Plastic sticks for balloons (iii) Plastic flags (iv) Candy sticks (v) Ice cream sticks (vi) Polystyrene (Thermocol) for decoration (vii) Plates (viii) Cups (ix) Glasses (x) Forks (xi) Spoons (xii) Knives (xiii) Straws (xiv) Trays (xv) Wrapping/ packing films around sweet boxes (xvi) invitation cards (xvii) Cigarette packets (xviii) Plastic / PVC banners less than 100 microns (ix) Stirrers.
-  Comprehensive Action Plan for taking measures to eliminate single use plastic was prepared in the proforma as per SOP of MoEF&CC and circulated on 24.08.2021 and IEC Plan was circulated on 23.08.2021 to all ULBs, Education and GAD Departments, DMs etc. to comply with the action points in the given timelines.

8.5 E-Waste

-  According to the E-waste (Management) Rules, 2016 every producer of electrical and electronic equipment listed in Schedule-I, shall apply for Extended Producer Responsibility (EPR) in Form-I and obtain authorization from CPCB. As well as maintain records in Form-2 and shall file returns of previous year in Form-3 to CPCB on or before 30th day of June every year.
-  "Dismantler of E-Waste" can apply for Authorization in Form- IV in DPCC under E-Waste (Management) Rules, 2016 and also has to obtain consent to establish (CTE) and consent

to operate (CTO) in Green Category under the Water (Prevention and Control of Pollution) Act, 1974 and the Air (Prevention and Control of Pollution) Act, 1981.

- ✚ "Refurbishers of E-waste" can apply for Authorization in Form-I in DPCC under E-Waste (Management) Rules, 2016 and also has to obtain Consent to Establish (CTE) and Consent to Operate (CTO) in Green category under the Water (Prevention and Control of Pollution) Act, 1974 and the Air (Prevention and Control of Pollution) Act, 1981.

It is mandatory for the Producers, Bulk Consumers/ Consumers of the Electrical and Electronic equipment, Collection Centres, Dismantlers, Recyclers of the E-waste to comply with the provisions of the E- waste (Management) Rules, 2016. Majority of the functions under the said Rules have been vested with the Central Pollution Control Board as the manufacturers/producers are operational in multiple states. CPCB grants authorization for Extended Producer Responsibility (EPR). DPCC is responsible to ensure compliance of the terms and conditions of the authorization granted by the CPCB.

- ✚ DPCC verified collection centres of E waste under EPR issued by CPCB through inspections of 88 collection centres. 72 were found non complying
- ✚ The number of EPRs issued by CPCB in Delhi is more than 530.

Granting of authorization for import of Ferrous & Non-Ferrous Material under Hazardous and Other Wastes (Management and Transboundary Movement) Rules, 2016

Authorisation is granted for import of Wastes [i.e. Basel No. (a) B-1010, (b) B-1050 and (c) B-1100] mentioned in Part-D of Schedule III of the Hazardous & Other Wastes (Management &Transboundary Movement) Rules, 2016 without possessing any of the Hazardous Characteristics specified in Part C of the Schedule III.

The import is permitted only on behalf of actual user(s) having valid Authorization under Hazardous & Other Wastes (Management &Transboundary Movement) Rules, 2016, and Consent to Establish & Consent to Operate under Water (Prevention & Control of Pollution) Act 1974 and Air (Prevention & Control of Pollution) Act, 1981, from the concerned State Pollution Control Board/ Committee. Authorization under the prescribed rules is one time authorization.

The importer of the hazardous and other wastes is required to file an annual return in the Form- 4 to Delhi Pollution Control committee on or before the 30th day of June following the financial year to which that return relates.

The importer is required to obtain a letter/ certificate from the actual user(s) stating that the importer has imported the waste on their behalf. All the imported waste(s) shall be directly transferred to the actual user(s) from the port directly or through the importers registered from CPCB/ State Pollution Control Board/ Committee.

In case of non-compliance of any of the conditions or illegal import or import other than the Other Waste(s), or possessing any of the hazardous Characteristics specified in Part C of the Schedule in respect of import or export of such wastes in accordance with rule 11, 12 and 13, the waste shall be re-exported by the importer at his cost within a period of ninety days from the date of the arrival into India.

The importer, if importing waste for recycling purpose, is required to give the imported metal scrap to only authorized recyclers located outside of NCT of Delhi.

8.6 Biomedical Waste

Bio medical waste management in Delhi:

- DPCC has taken initiatives for simplifying the application process and has developed an online portal and all applications for authorizations under Bio-Medical Waste Management Rules, 2016 (BMWM Rules, 2016) are filed by Health Care Facilities (HCFs) on-line in DPCC. The authorizations against the complete applications are also issued online mode thereby quickening the process of disposal of the applications. Health Care Facilities not generating any biomedical waste are issued automatic authorization/ acknowledgement at the time of filing of application. Due to the above steps taken by DPCC against the violators of BMWM Rules, 2016, there is substantial increase in the number of HCFs which have applied in DPCC for authorization. More than 10000 HCFs of NCT of Delhi have been brought into the ambit of the provisions of BMWM Rules, 2016
- Before applying for authorization, every Health Care Facility (HCF) is required to enter into an agreement with the concerned CBMWTF for collection, transportation, treatment and disposal of the Bio-Medical Waste generated by it. Bio-Medical Waste is collected, transported and treated by two Common Bio-Medical Waste Treatment and Disposal Facilities (CBMWTFs) operating in Delhi namely M/s SMS Water Grace BMW Pvt. Ltd. and M/s Biotic Waste Solutions Pvt. Ltd.

- Segregation of the Bio-Medical Waste as per the provisions of BMWM Rules, 2016 plays an important role and all the HCFs are required to ensure proper segregation before the said waste is handed over to Common Bio-Medical Waste Treatment and Disposal Facilities (CBMWTFs) for transportation, treatment and disposal. Whenever any instance of violation w.r.t. segregation of waste is observed or comes to the notice of DPCC, action such as effective closure, levy of Environmental Compensation (EC) are taken.
- CBMWTFs are having compartmentalized vehicles for storing different types of waste in the transportation vehicle and the vehicles are properly disinfected on periodical basis. Workers also wear protective gear to avoid any infection and training is also given to the workforce from time to time to comply with the provisions of the BMWM Rules, 2016.
- Barcode system for tracking of biomedical waste collected and transported to CBWTF for treatment and disposal has been implemented in Delhi. Both CBWTFs which are operational in NCT of Delhi have installed the software for the same. As per the CPCB Guidelines, the HCFs having bed strength of 30 and above are required to scan the bar coded waste bags/containers by using the software themselves. More than 500 such HCFs have adopted this bar code system.
- Both the CBMWTFs in Delhi have installed Online Continuous Emission Monitoring System (OCEMS) with the incinerators in their facilities and the data is being shared with the CPCB as well as DPCC. Parameters like temperature in Primary & Secondary Chambers of the incinerator, Particulate Matter, Carbon Monoxide, Carbon Dioxide are monitored and shared online.

CHAPTER IX

9. ENVIRONMENT IMPACT ASSESSMENT CELL

EIA Cell has also been created separately to look after Consent Management Committee work related to cases in which Environmental Clearances have been issued (except those pertaining to Healthcare Establishments and Power Plants/Solid Waste Facilities) and various drives were undertaken for implementation of Dust control norms in large construction projects and Environmental Compensation of Rs. 2,50,50,000/- (Rs. Two Crore Fifty Lakh Fifty Thousand Only) were imposed on the defaulters projects. Rs. 2,50,50,000/- (Rs. Two Crore Fifty Lakh Fifty Thousand Only) were realized till March, 2022.

In pursuance of Hon'ble Supreme Court order dated 13.01.2020 all the construction projects requiring environmental Clearance were directed to install Anti-Smog Guns and on the action taken Hon'ble Supreme Court on record appreciated the action taken in its order dated 24.08.2020 in IA No.13029.

Delhi Pollution Control Committee has developed an online mechanism through a Web Portal called "Dust Pollution Control Self-Assessment" at <http://dustcontroldpcc.delhi.gov.in> for self-assessment by construction agencies with respect to dust pollution in their sites in pursuance of directions dated 11.06.2021 by Commission for Air Quality Management (CAQM) in National Capital Region and Adjoining Areas. Further the CAQM vide its direction dated 20.12.2021 has ordered that for the project located in the Jurisdiction of GNCTD, the proponent of C&D Projects on plot/site measuring 500 Sqm. or above shall immediately register their projects on the "web portal" for online remote monitoring by the agencies concerned. Hon'ble Supreme Court of India in WP (Civil) 13029 /1985 in the matter of M.C Mehta vs UOI and National Green Tribunal has passed various orders to curb dust pollution in Delhi emanating from Construction & Demolition Activities.

Delhi Pollution Control Committee (DPCC) has issued Public Notices in various Newspapers to directing all project proponents, contractors, builders, person or authority undertaking construction and demolition activity in National Capital Territory of Delhi to immediately register their projects on Web Portal and upload self-assessment/audit for the purpose of

online remote monitoring by the agencies concerned and to take a note that prescribed dust mitigation measures are to be ensured.

Total 584 Projects have been registered in the period 2021-22 on the “Dust Pollution Control Self-Assessment” Portal and Monthly Meeting/ workshop has been organized regarding steps to be taken for implementation of dust control norms and remote monitoring of projects.

In pursuance of MOEF&CC, GoI notification dated: 06-sept-2021, Delhi govt. declared the Delhi Pollution Control Committee as a secretariat of State Environment Impact Assessment Authority (SEIAA) and State Expert Appraisal Committee (SEAC) of Delhi. EIA Cell discharged the functions related to appraisal and grant of environmental clearances to the various projects falling under the purview of EIA notification, 2006. Special Secretary, Deptt. Of Environment (Dr. K.S. Jayachandran, IFS) was designated as the Member Secretary SEIAA and Senior Environmental Engineer (Sh. Pankaj Kapil) of EIA Cell performed the duties of the Member Secretary, SEAC.

CHAPTER X

10. CONSENT MANAGEMENT

Consent Management Cell (CMC) processes the applications for Consent under the provisions of the Water (Prevention & Control of Pollution) Act, 1974 and the Air (Prevention & Control of Pollution) Act, 1981, wherein any industry, operation or process or an extension and addition thereto, which is likely to discharge sewerage or trade effluent into the environment or likely to emit any air pollution into the atmosphere will have to obtain consent of Delhi Pollution Control Committee, and to prevent and control pollution of water and air through education, awareness and offering scientific and technological solutions to achieve its goal of a cleaner and greener environment. This cell also deals with the applications under Hazardous Rules and Environmental Clearance.

The CMC has been divided in seven CMCs as per the details given below: -

- i. CMC-I: East District, Shahadara and North East District
- ii. CMC-II: South, South East and South west district.
- iii. CMC-III: North west District.
- iv. CMC IV: New Delhi
- v. CMC-V: North District
- vi. CMC-VI: West District
- vii. CMC-VII: Central Delhi

EIA Cell has also been created separately to look after Consent Management Committee work related to cases in which Environmental Clearances have been issued (except those pertaining to Healthcare Establishments and Power Plants/Solid Waste Facilities) and for coordinating the Meetings of SEIAA and SEAC (Tenure of erstwhile SEIAA and SEAC expired on 31.03.2018 and reconstitution under process). The Cell also implements dust control norms in Environmental Clearance Projects.

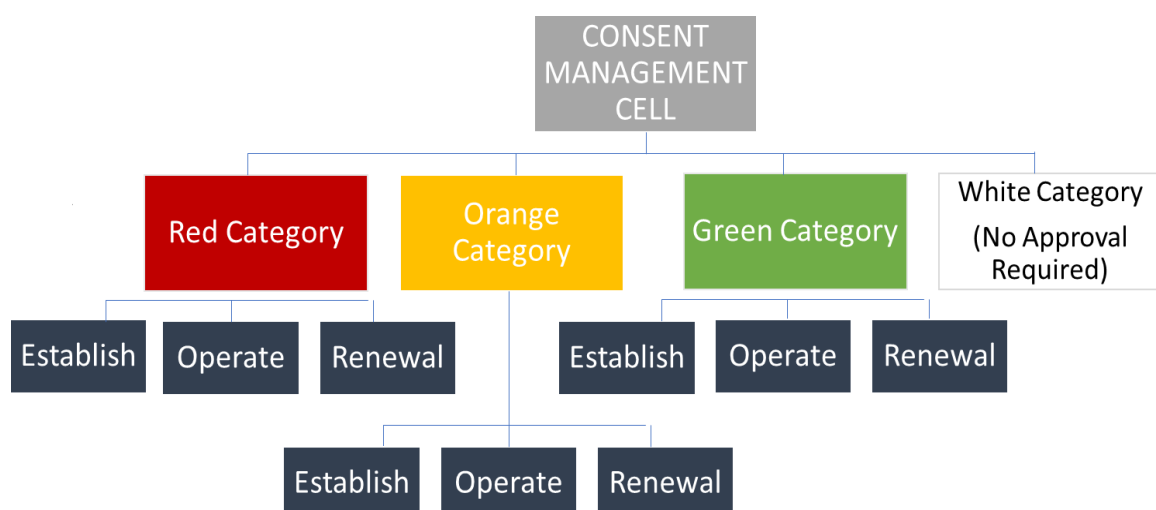


Table 3: Consent Status of the CMCs during the year 2021-22(data provided by cmc-3 on behalf of all CMCs)

Sl. No.	Consent status	Total Number
1.	Total number of applications received for Consent under Water and Air Acts during reference period:	11348
2.	Total number of Consent granted under Water and Air Acts during reference period	9274
3.	Total number of Consent refused under Water and Air Acts during reference period:	1147
4.	Total number of pending applications for Consent under Water and Air Acts at the end of financial year/ reference Period	874

CHAPTER XI

11. CITIZEN CHARTER

Consent to Establish / Operate under Air & Water Acts:

Consequent upon the directions issued by Chairman, CPCB u/s 18 (1) (b) of Water and Air Act regarding classification of industries and decisions taken by DPCC in the Board meeting held on 27.02.2017, the following is ordered vide order dt: 17.04.2017 & 31.05.2017.

1. Category II(a) cases by the committee headed by Chairman DPCC.
 2. Category II(b) cases by the committee headed by Member Secretary, DPCC
 3. Category I cases by the concerned Sr. Env. Engineer / Cell In-charge.
- The industries in Delhi has been classified in Red/ Orange/ Green/ White category as per the list, indicating the classification of 637 industries as uploaded on DPCC website.
 - The industries categorized under White category shall not be required to obtain the Consent to Establish / Operate under the Air & Water Acts and submit an undertaking to DPCC online and send the signed copy of the undertaking within 30 days to DPCC.
 - The industries categorized under Red, Orange and Green category only need to apply for Consent to Establish/ Operate under the Air & Water Acts. The period of Consent to Establish shall be from one year to seven years as requested by the Project Proponent. However, the Consent to Operate / Renewal shall be granted for 5 years in case of Red/Orange Category and 10 years in case of Green category of Industries.
 - The consent under Air and Water Acts & Authorization/ Registration under the applicable Rules shall be decided by following:-
 - Prohibited / Negative List of Industries mentioned in "Annexure-7.0 (III)" of the Master Plan for Delhi- 2021 are not permitted in NCT of Delhi and therefore application for Consent/ Authorization Registration shall not be accepted from such units.
 - The categorization of any new industrial activity etc. will be done by the existing Committee for harmonization of classification of the industries with approval of MS and Chairman, DPCC and the above mentioned list shall be appended accordingly

Cate gory	Classification	Deciding Authority	Timeline	Remarks
II(a)	Activities/ Process which require installation of pollution control device(s) for controlling pollution in emission/ effluent in respect of: (a) SPIs/ STPs of DJB, WTPs of DJB, CETPs/ Power Plant/ MSW Plants etc.	Committee comprising of: (a) Chairman, DPCC-Chairman (b) Member Secretary, DPCC-Member (c) Dr. S.K. Gupta, Professor, IIT, Delhi-Member (d) Prof. C.R. Babu, Professor Emeritus (CEMDE), University of Delhi-Member (e) Dr. Anil Kumar, Director DoE-Member (f) All SEEs of concerned Cell-Member (g) All EEs of concerned Cell-Member	Within 30 days from the date of receipt of the application .	Inspection will be necessary before the case is placed before the committee.
II(b)	Activities/ Process other than those falling under clause II(a)	Committee of the following: (a) Member Secretary, DPCC-Chairman (b) All SEEs of concerned Cell-Member (c) All EEs of concerned Cell-Member	Within 30 days from the date of receipt of the application .	Inspection post-decision or pre-decision as may be ordered by the committee.
I	Activities under Green Category except activities/ process which require installation of pollution control device(s) such as Emission control system (ECS) or Effluent Treatment Plant (ETP)/ Sewage Treatment Plant (STP)/ Ready Mix Concrete Plants (RMCs).	Cell In-Charge/ Sr. Env. Engineer Concerned	Within 07 days from the date of receipt of the application .	The application shall be decided within 7 days from the date of receipt itself except where there is ambiguity with respect to classification which needs clarity/ examination

- It is mandatory to apply for consent through online DPCC portal and unit is required to send by post hard copy of the application along with required documents to DPCC.
- The above mentioned committees are taking decisions online in its meetings.
- DPCC is receiving application for consent and authorisation from the areas notified for redevelopment under MPD-2021 as per office order dated 14.12.2016.
- DPCC also accepts application for registration online under the Plastic Waste Management Rules 2016.
- Authorizations are granted under the provisions of Hazardous and Other Wastes (Management and Transboundary Movement) Rules, 2016 for the Hazardous Waste Generating Units.
- Meetings of the two Committees constituted for deciding consent and authorization are held regularly and decisions taken are implemented by the concerned CMC.
- Inspection is conducted on the directions of the Consent Management Committee or the Competent Authority.
- CMC also ensures all industrial units adhere to the pollution control norms.
- No consent to operate is granted until industrial unit has obtained consent to establish.
- Redressal of public complaints received through web portals of PGMS. Listening post of LG, GMS, CP Grams etc. as per the policy.
- Household industries as per the criteria given in MPD-2021 have to obtain No Objection certificate from the high powered committee constituted under the Chairmanship of Commissioner of Industries, Department of Industries and Government of Delhi in reference to the Hon'ble Supreme Court orders in I.A. No 22 in WP(C) No. 4677 of 1985 titled as M.C. Mehta Vs. Union of India & Others.

Units Operating in Residential Area/Non-Conforming Areas:

- With regard to closure of the illegal units from the residential / non-conforming areas, Hon'ble Supreme Court has passed an order on 07.05.2004 in I.A. No 22 in WP(C) No. 4677 of 1985 titled as M.C. Mehta Vs. Union of India & Others. As per the order all industrial units that have come up in residential / non-conforming areas in Delhi on or after 1st August, 1990 shall close down.
- As per the meetings held before Chief Secretary, Govt. of NCT of Delhi lastly on 05.06.2015, it has already been decided that action on industries operating in non -

conforming areas and violating the Master Plan of Delhi will be taken under the Delhi Development Act by the Delhi Development Authority in development areas and Municipal Corporation of Delhi in all other areas. Commissioner of Industries is working as a Nodal Officer on behalf of the Hon'ble Supreme Court Monitoring Committee as constituted by the Hon'ble Supreme Court of India in the order dated 07.05.2004.

- Municipal Corporation of Delhi, which have been entrusted with the powers to enforce the Master Plan has original jurisdiction to ensure that no industry runs in violation of MPD-2021.
- Household industries as per the criteria given in MPD-2021 have to obtain No Objection certificate from the high powered committee constituted under the Chairmanship of Commissioner of Industries, Department of Industries and Government of Delhi in reference to the Hon'ble Supreme Court orders in I.A. No 22 in WP(C) No. 4677 of 1985 titled as M.C. Mehta Vs. Union of India & Others

Authorization under the Hazardous and Other Wastes (Management and Transboundary Movement) Rules, 2016:

As per the rule 6 of the Hazardous and Other Wastes (Management and Transboundary Movement) Rules, 2016, as amended to date, every occupier of facility, handling, generation, collection, storage, packaging, transportation, use, treatment, processing, recycling, recovery, pre-processing, co-processing, utilization, offering for sale, transfer or disposal of the hazardous waste and other wastes shall be required to obtain an authorization from Delhi Pollution Control Committee (DPCC).

Time Frame for deciding Authorization under the Hazardous and Other Wastes (Management and Transboundary Movement) Rules, 2016:

Within 30 days from the date of receipt of application for Authorization, if complete in all respects, as per provisions of the said Rules.

The application of Authorization will be decided along with the consent application as per procedure mentioned above.

Authorization under Bio-Medical Waste Management Rules, 2016:

For deciding applications for Authorization under BMW Rules and Consent under Air & Water Act, in respect of Hospitals/Health Care Establishments/ Nursing Homes/etc. Having bed

strength of 51 & above and operators and transporter of Common Bio-Medical Waste Treatment Facilities (CBWTFs) and any other Industry assigned to WMC-1:-

S.No	Member of the Committee	Category
1.	BMW Committee No. 1 1. Chairman, DPCC 2. Member Secretary, DPCC 3. Dr. Anil Kumar, Director(Environment) 4. Member Secretary, Centre for Occupational and Environmental Health (COEH) 5. Medical Superintendent, GB Pant Hospital 6. Smt. Bharti Chaturvedi, Chintan Environmental Research and Action Group 7. Dr. T. K Joshi, COEH 8. Concerned Sr. Env. Engineer. 9. Concerned Env. Engineer.	Hospital/ Nursing Homes/Health Care Establishments etc. having bed strength of 200 and above including operators of Common Bio- Medical Waste (CBWTF) and Transportation of Bio-medical Waste and EIA cases.
2	BMW Committee No. 2 Member Secretary, DPCC Dr. Anil Kumar, Director(Environment) Medical Superintendent, Aruna Asaf Ali Hospital Concerned Sr. Env. Engineer. Concerned Env. Engineer.	Hospital/ Nursing Homes/ Health Care Establishments etc. with bed strength of 51 to 199.

Common Bio-Medical Waste Treatment Facilities (CBWTFs) in Delhi:

There are two operators of CBWTFs in Delhi:

- M/s Biotic Waste Solutions Pvt. Ltd., 46 , SSI Industrial Area, G.T. Karnal Road, Delhi-33
Phone (O) : 011 - 47528106, 47528107 .
- M/s SMS Water Grace BMW Pvt. Ltd, Nilothi Sewage Treatment Plant Complex of DJB, Nilothi, Delhi-41 Phone No. 011-28363691, 28363692, 28363693, 28363079. Fax No: 011-28363690 Mob: 09560521112, 09871222338.

Following two agencies have been identified by DPCC for collection of the mercury from the Hospital/ Health Care Establishments in Delhi.

- Shri Rohit Talwar, M/s Supreme Surgico, 262 / 425 , Lane No. 8, Friends Colony Industrial Area, Shadara, Delhi. (Mobile No. 9958527527)
- Shri Sandeep Kalra, M/s Anita Industries, 29, Bhagat Singh Market, New Delhi. (Mobile No. 9810240250)

These agencies are engaged in manufacture of Thermometers/ B.P. measuring Apparatus etc. and the collected mercury from hospitals which is almost in elemental form is used in their manufacturing process.

Time frame for deciding Consent to Establish/ Operate under Air/ Water Act

Within 30 days from the date of receipt of application for Consent, if complete in all respect, as per provision of Air & Water Act.

Time Frame for deciding Authorization under Bio-Medical Waste Management Rules, 2016

Within 30 days from the date of receipt of application for Consent, if complete in all respect, as per provision of Bio Medical Waste Management Rules, 2016.

Authorization under Solid Waste Management Rules, 2016:

- ✚ Every Local body/Municipal Authority shall, within its territorial area , be responsible for the implementation of the provisions of these Rules, and for any infrastructure development for collection, storage, segregation, transportation, processing and disposal of municipal solid wastes and shall make an application in Form-I for grant of authorization for setting up waste processing, facility, if the volume of waste is exceeding five metric tons per day including sanitary landfills from DPCC.
- ✚ The operator of Solid Waste Processing and treatment facility shall obtain necessary approvals(Consent under Air & Water Acts, and Authorization under Solid Waste Management Rules, 2016) from DPCC.
- ✚ Authorization granted shall be valid for a period of 5 years and after the validity is over, a fresh Authorization shall be required to be submitted to DPCC.
- ✚ Validity of Authorization shall be synchronized with validity of Consent.

Authorization under Construction and Demolition Waste Management Rules, 2016:

The operator of Construction and Demolition Waste processing facilities are required to apply for authorization under Construction and Demolition Waste Management Rule, 2016 in Form-I to DPCC.

Authorization under E-Waste (Management) Rules, 2016:

- ✚ Ministry of Environment, Forest and Climate Change has notified E-waste (Management) Rules, 2016 on 23.03.2016 which are effective from 01.10.2016.
- ✚ According to the E-waste (Management) Rules, 2016 every producer of electrical and electronic equipment listed in Schedule-I, can apply for Extended Producer Responsibility (EPR) in Form-I and obtain authorization from CPCB. As well as maintain records in Form-2 and shall file returns of previous year in Form-3 to CPCB on or before 30th day of June every year.
- ✚ "Dismantler of E-Waste" can apply for Authorization in Form- IV in DPCC under E-Waste (Management) Rules, 2016 and also has to obtain consent to establish (CTE) and consent to operate (CTO) in Green Category under the Water (Prevention and Control of Pollution) Act, 1974 and the Air (Prevention and Control of Pollution) Act, 1981.
- ✚ "Refurbishers of E-waste" can apply for Authorization in Form-I in DPCC under E-Waste (Management) Rules, 2016 and also has to obtain consent to establish (CTE) and consent to operate (CTO) in Green category under the Water (Prevention and Control of Pollution) Act, 1974 and the Air (Prevention and Control of Pollution) Act, 1981.

Public Complaint Redressal

- ✚ Complaint against the unit operating in non-commercial/residential areas are forwarded to concerned Municipal Corporation for closure of the units operating in violation of MPD 2021 in view of the Hon'ble Supreme Court Order.
- ✚ Inspection w.r.t. Redressal of public complaints as approved/directed by Competent Authority.
- ✚ Redressal of public complaints received through web portals of PGMS, Listening post of LG, CP Grams etc. as per the policy.

Right to Information

The Government of India and Government of Delhi have given an important right to the citizens to obtain information under the Right to Information Act, 2005 (RTI-2005) & Delhi Right to Information Act, 2001 (DRTI-2001), respectively. Citizens can file an application to the State Public Information Officer (SPIO) /Competent Authority. A nominal fee of Rs.10/- Under RTI-2005 & Rs.25/- under DRTI-2001 is charged for information. In case the applicant does not feel fully satisfied with the information provided by the SPIO/Competent Authority, an appeal may be filed before the Member Secretary, DPCC, under RTI-2005 & before Secretary, Public Grievance Commission under DRTI-2001. Sh. P. S. Pankaj, SEE, DPCC has been nominated as the SPIO under Right to Information Act, 2005, & EE (Planning) has been nominated as the Competent Authority under Delhi Right to Information Act, 2001.

Website Of DPCC

DPCC website which is recently redesigned gives information as regards various pollution control laws & decisions of various committees constituted for deciding the applications for grant of Consent and Authorization. The available information is updated regularly. The following information/ facility are available on DPCC's website.

-  All the application forms (downloadable) with respect to applications under Water & Air Act, Bio- Medical Waste Management Rules, Hazardous and Other Wastes (Management and Transboundary Movement) Rules, Plastic Waste Management Rules & Environment Impact Assessment Notification, and filing returns under Battery (Management and Handling) Rules and Water Cess Act.
-  Information regarding Environmental Standards pertaining to Air, Water & Noise.
-  Online filing of Consent applications, Bio-medical waste Authorization applications, Hazardous waste Authorization applications, Plastic Waste Registration Application, Request for Laboratory tests, Water Cess Returns etc.
-  Various Acts, Rules, Notifications, Orders and Circulars pertaining to Environment and Pollution Control including tenders and notices issued by DPCC.
-  Important Supreme Court & High Court Orders regarding industrial pollution.
-  Status of various applications with respect to Consent, Authorization, Water Cess, Laboratory Test Report etc.

-  The Minutes of Meeting with respect to various committees constituted for deciding the application under Water & Air Acts, Bio-medical Waste (Management Rules, Hazardous and Other Wastes (Management and Transboundary Movement) Rules, Plastic Waste Management Rules & Environment Impact Assessment Notification,
-  Information regarding Water Quality of River, Drains, STP, Thermal Power Plant (TPP), CETP, WTP, including the information regarding Ground Water Quality and Ambient Air Quality in Delhi.
-  Waste Management with respect to MSW, BMW, HW, Electronics Waste, Mercury Waste, Battery Waste, Construction & Demolition Waste and Fly Ash Management.
-  Information about Empanelled Agencies and Citizen Charter.
-  Status of RTI applications.
-  Real Time Air quality Data.

CHAPTER XII

12. TRAINING PROGRAM

S. No.	Training Institute	Training Title	Duration with date
1.	ESIC	Laboratory Management System Awareness	Four days (24.05.2021-27.05.2021)
2.	NPC, Chennai	Performance Evaluation ETP/STP/CETPs.	Three days (28.03.2022 – 30.03.2022)
3.	CES, Chennai	Environment Management in Tanneries (Including ZDL, Chrome Recovery) Sponge Iron Plant, Slaughter House, Pharma and Chemical Sector	Three days (Feb - march 2022)
4.	NLSIU, Bengaluru	Environmental Legislation Interpretation, Enforcement, Legal and Statutory Requirements- Case Studies	Three days (Feb -14-16 ,2022)
5.	ESCI, Hyderabad	Design of Solid Waste Management (SWM),Common Bio Medical Waste Treatment Facility (CBMWTDF)	Three days (March - 14-16 ,2022)

CHAPTER XIII

13. IT CELL

IT Cell looks after the following IT interventions:

1. OCMMS (Online Consent Management & Monitoring System)
2. OLMS (Online Monitoring System)
3. Green Delhi App
4. Minimizing Regulatory Compliance Burden
5. MHA portal
6. Dust Pollution Control Portal
7. Central Inspection System
8. E-District Portal

Online Consent Management & Monitoring System (OCMMS)

OCMMS web portal was developed by NIC with support from Ministry of Environment, Forest and Climate Change (MoEF&CC) and Central Pollution Control Board (CPCB), New Delhi in 2011. OCMMS was launched on 02.11.2018.

OCMMS is a web based Application for Automation of the manual process of Consent Management, BMW, HWM, MSW, Battery Module and Inspection Management of DPCC. It also allows the industries for self-registration; apply for Consent to Establish, Consent to operate, and Authorization for various categories for industries / institution. Thereby, it helps DPCC for online processing of application processing.

Functional Features of OCMMS:

-  Being an open source application makes it a deployment flexible, scalable and cost effective solution.
-  The system has inbuilt user authentication and authorization mechanism, which defines role and provides access control accordingly.
-  System with its inbuilt functionalities seeks for clarifications: raise inspection to Regional Officer along with the facility of uploading a report.

Modules handled by OCMMS:

- i. Consent Management
- ii. Waste Management (BMW, HWM, MSW)
- iii. Laboratory Management System
- iv. Information, Alert and Notification through email, SMS, etc.
- v. Report/Queries
- vi. E-Noting
- vii. Frequently Asked Question (FAQs)
- viii. Digital Signature in consent module
- ix. Data migration from Old DPCC Portal to New Portal
- x. Implementation of payment gateway (SBI, ICICI)

OLMS (Online Monitoring System)

“Online Monitoring System (OLMS)/Online Continuous Emission Monitoring System (OCEMS)” software was developed and successfully launched on 07.03.2019.

Under the direction from CPCB, units including CETPs, STPs, Power Plants, Waste to Energy Plants, Mother Dairy, DMS, etc. to install OLMS/OCEMS and transfer its data to the server of DPCC & CPCB.

- 52 Industry integrated on the OLMS portal

Green Delhi App

The Green Delhi App is a tool, developed by the Delhi Pollution Control Committee and NIC, which allows citizens to identify and report dispersed sources of air and noise pollution in the National Capital. In Green Delhi App, lodged complaints are assigned to the concerned department(s) for resolution. Green Delhi App is aimed to resolve grievances related to Air and Noise pollution on priority by the 28 Agencies of Delhi.

Structure and Functioning of Green Delhi app in Green War Room:

For efficient functioning of the GWR, the following six Stakeholders are responsible:

1. In-charge (GWR)
2. DPCC Trainees
3. Green Marshals

4. DPCC Engineer
5. Nodal Officers from Urban Local Bodies (Departments)
6. Green Delhi App IT Team (DPCC & NIC)

New Developments

- Android version of APP is launched for users
- iOS version of APP is launched for users
- Green Delhi APP dashboard is launched for officers

Minimizing Regulatory Compliance Burden

Government of India introduces the concept of Minimizing Regulatory Compliance Burden on industry/ business and on citizens under Ease of Doing Business so that if anyone wants to setup any industry in India/ Delhi then an industry can be set up very easily by having all permissions from concerned government departments. For this in Delhi, DPIIT has developed the Regulatory Compliance portal to systematically review regulatory compliances and monitor work done on reducing compliance burden. DPIIT requested to first identify the compliances which need to be reduced for minimizing burden on business and on citizens. The compliances may be abolishing renewals, auto-renewals, extend periodicity of licenses, minimizing fee, self-certification, third-party inspection, registers/records elimination, etc. After that, online implementation of compliances, which need to be reduced, be done. DPIIT has also shared Team Lease data with all departments of Delhi having 1836 compliances related to various departments. It was found that 629 of the compliances pertain to DPCC.

It was found that:

1. 434 reforms are already implemented by DPCCI.
2. 135 reforms shall be implemented in the future.
3. 32 reforms are not applicable in Delhi
4. 28 reforms not to be implemented.

‘Unified Portal’ for licensing of eating/ boarding houses in Delhi (MHA Portal)

Ministry of Home Affairs has simplified the processes of granting licenses to eating house/boarding house owners in Delhi by implementing of “Ease of Doing Business” framework through a robust single window clearance mechanism. This system enable the business owners

to approach a single designated authority and seek all clearances and approvals to setup and operationalize their eating house business in Delhi i.e. Hotels, Restaurant, Guest House, Banquet hall.

This portal provides a Unified platform to applicant wherein business owners can register and apply for the license for establishing eating houses/boarding house in Delhi. A Single license will contain basic clearance from all four authorities i.e. Delhi Pollution Control Committee, Delhi Fire Services, Delhi Police and Municipal Authorities of Delhi.

-  It simplifies and rationalizes the regulatory processes (registration and inspection processes).
-  It avoids procedural delays in getting statutory clearances from various authorities.
-  It implements a Unified Licensing Procedure across various government authority i.e. Municipal Corporation, Fire department, Delhi police and DPCC.
-  It provides a common application form for getting clearance from Municipal Corporation, Fire department, Delhi police and DPCC.
-  It facilitates transparency, traceability and accountability in operations.

Dust Pollution Control Portal

In pursuance to direction of Commission for Air Quality Management (CAQM) in National Capital Region, DPCC has initiated the self-declaration of Dust control Audit by dust generating projects like buildings, infrastructure area development, industrial constructions etc. This portal has been developed with the vision to institutionalize the self-monitoring regime for control of Air Pollution in NCT of Delhi. The self-declaration of Dust Control Audit will be uploaded by all the current/upcoming construction and demolition projects on plot area equal to or greater than 500 Sq. metre.

The Objective of this Audit is to motivate the project proponents for control of dust pollution by Self- Auditing and to ensure improvements through periodical audits.

Implementation:

- Portal is launched
- Android APP related to portal is launched

Central Inspection System

Labour Department in association with NIC Delhi State Unit is developing Central Inspection System (CIS). OCMMS development team was required to develop and provide API through which NIC (Delhi State Unit) may capture the online data of high risk category (Red) Establishments/ Industries registered under Environment Act. A number of meetings have been convened by the Labour Department for the same.

Following decisions have been taken during the meeting:

- 1) DPCC will provide the data of high risk industries i.e. Red category industries to Labour Department in excel sheet to understand and clarify which fields/ parameters are required to Labour Department in CIS. Labour Department will discuss with the CIS development team and will approve that list or provide the list of required data field/ parameters to DPCC so that NIC (MoEF&CC) may develop API on the basis of provided parameters.
- 2) Central Inspection System will be developed in two phase:-
 - a) In first phase, NIC (MoEF&CC) will provide API to CIS development team. With the help of the API, the high risk data may be fetched from OCMMS web portal to CIS web Portal. Initially all approved high risk applications data may be sent to CIS web portal and afterward as application is processed in OCMMS will be sent to CIS web portal for inspection. List of inspector/ DPCC officers will be provided by DPCC to Labour Department.
 - b) In second phase, the integration between DPCC OCMMS and CIS System will be done. Inspection reports have already been sent by DPCC to Labour Department. Whatever the inspections and actions (Show Cause Notice, Letters, Directions etc.) were taken by the officers may also be updated in OCMMS web portal. The format for show cause notice, letters, directions etc. will be shared by DPCC to Labour Department. Both development teams shall discuss the process of implementations of this phase.

e-District Portal

e-District Delhi is the Delhi government portal. e-District is a comprehensive and web-enabled service portal through which citizens can access various services provided by the Government

of Delhi. It provides end-to-end integrated solution to various services availed through this portal. By using e-District platform, citizens of Delhi can avail various services of the Delhi Government at the click of the button. It is a facility provided by Delhi e-Governance Society, Information Technology Department, GNCTD for online delivery of services to citizens in a time bound and hassle free manner. e-District also provides for online verification of various certificates issued by multiple Departments of Delhi.

e-District envisions reducing duplicity at every level in Delhi Government thereby improving operational efficiency of the entire system in Delhi. The ultimate objective is to maximize citizen comfort, enhance operational efficiency, improve quality standard & provide time bound and hassle free services to the citizens.

For this, DPCC, having 8 online services, needs to be integrated with e-District portal. Earlier, DPCC is having all their 8 services online but not integrated with e-District portal. IT cell, DPCC has prepared the Functional Requirement Specification (FRS) with reference to all 8 online services and send the same to NIC- Delhi State Unit. Then, NIC- Delhi State Unit has prepared the Software Requirements Specification (SRS) and sent to DPCC. Then, IT cell DPCC sent the approval of SRS to NIC- Delhi State Unit. IT cell DPCC also contacted regarding same to NIC OCMMS for integration of all 8 services of DPCC with e-District portal. IT cell regularly contacted both NIC team regarding the development and integration of services. After rigorous testing of work flow of all 8 services at test server by IT cell DPCC, the integration of all 8 services was successfully completed on test server. Then IT cell send the UAT form to NIC-Delhi Sate Unit for go-live of all 8 services. The all 8 services of DPCC were made go-live on e-District portal on 24-02-2021.

The details of all 8 online services provided by DPCC to the citizens of Delhi are mentioned below:

S. No.	Name of Services provided by DPCC	Acceptance of Application (Online/ Offline)	Delivery of Service (Online/ Offline)	Timeline as per the Act & Rules
1.	Issuance of the Consent certificate under Air & Water Act	Online	Online	120 days
2.	Authorization under Bio-Medical Waste Management Rules, 2016	Online	Online	90 days
3.	Authorization under the Hazardous Wastes Management Rules for import of Ferrous & non-ferrous scrap	Online	Online	120 days
4.	Authorization under the Hazardous and Other Wastes (Management and Transboundary Movement) Rules, 2016	Online	Online	120 days
5.	Authorization under Solid Waste Management Rules, 2016	Online	Online	60 days
6.	Registration under Plastic Waste Management Rules, 2016	Online	Online	90 days
7.	Authorization for refurbisher/dismantler for E-waste	Online	Online	120 days
8.	Authorization under Construction and Demolition Waste Management Rules, 2016	Online	Online	60 days

CHAPTER XIV

14. LEGAL MATTERS

Central Pollution Control Board is the State Board for all the Union Territories to exercise powers and perform functions under the Water (Prevention & Control of Pollution) Act, 1974 and Air (Prevention & Control of pollution) Act, 1981. CPCB has delegated all its powers and functions under the Water Act and Air Act in respect of Union Territory of Delhi to Delhi Pollution Control Committee vide notification No.S.O.198 (E) dated 15.03.1991.

The Water Act, and the Air Act, is empowering the DPCC to issue closure direction and stoppage of supply electricity, water or any other service to the industries. DPCC resorts to issue closure direction and stoppage of supply of electricity after giving sufficient time to rectify the defects by issuing show cause notice. The industries those aggrieved of Board's closure direction / any directions issued under the Water Act, the Air Act and the Environment (Protection) Act, file Writ Petitions / Appeals before the Hon'ble High Court and Appellate Authority / NGT respectively. Public Interest Litigation also filed by the individuals, NGOs etc. against the pollution caused by the industries. In order to deal with the Court cases, a separate legal wing is functioning.

APPELLATE AUTHORITY

The Financial Commissioner, GNCTD has been appointed as Appellate Authority to entertain the appeals(s) under Section 25, 26 or 27 of the Water Act, 1974 vide notification dated 18.02.1992 by Delhi Government. The Joint Secretary (In-charge of Pollution Control) Ministry of Environment & forest, Government of India as Appellate Authority to entertain the appeals(s) under the Air Act, 1981 vide notification dated 12.12.1989 by Central Government.

Under the "Bio-medical Waste Management Rules, 2016" & "Hazardous and Other Waste (Management and Transboundary Movement) Rules, 2016", Secretary (Environment), of the concerned State Government is appointed as the Appellate Authority.

The Authorities entertains and disposes off the appeals preferred by the industries against the order of DPCC as per the jurisdiction assigned to each Appellate Authority.

14.1 NATIONAL GREEN TRIBUNAL

The National Green Tribunal (NGT) was established at New Delhi on 18.10.2010, for effective and expeditious disposal of cases relating to environmental protection and forest conservation. Any person aggrieved by an order or decision of the SPCB/ Appellate Authority issued under Section 28, 29 and 33A of the Water Act, 1974 and under Section 5 of the Environment (Protection) Act, 1986 may apply to the Hon'ble NGT within 30 Days of the Order issued by the Boards / Appellate Authority. The Tribunal was also appointed second Appellate Authority challenging the order passed by Appellate Authorities under the provisions of the Water Act-1974, Air Act-1981 and E(P) Act-1986.

The rule of locus-standi has been relaxed by promoting public interest in environmental law which empowers the citizens and gives them easy access to the courts. The Polluter Pays Principle is applied to ensure that those responsible for pollution must bear the costs associated with remediation and restoration efforts. The sustainable development principle is applied to strike a fine balance between environmental protection and development activities. The NGT has passed several orders concerning the Pan-India issues such as the issues relating to the prevention of pollution in the rivers, demarcation of floodplains of the rivers, prevention of encroachment on the flood plains, solid and liquid waste management in the local bodies, rising sea level, waste management, recycling of plastic waste etc.

Statistics of cases in the year 2021-2022:

- a) 168 cases/ writs in NGT, District Court, Appellate Authority, High Court and Supreme Court were disposed of during the year
- b) 177 new cases were received during the year
- c) 07 complaint cases were filed in District Court for violation of provisions of Water/Air Act

14.2 IMPORTANT JUDGMENTS IN THE HON'BLE NGT & SUPREME COURT OF INDIA:

THE HON'BLE SUPREME COURT OF INDIA

- 1) The Hon'ble Supreme Court of India taken up the matter titled as "MC Mehta Vs. Union of India" [WP(C) No. 13029/1985] frequently and passed following directions:

Strict Measures for Waste Management and Road Dust: The Court has focused on road dust and improper waste management, both of which contribute to pollution in Delhi. The Supreme Court directed municipal corporations and the Delhi government to adopt dust suppression technologies and better solid waste management practices. It further instructed for stricter enforcement of waste segregation at the household level.

Immediate Action on Air Pollution During Winter Months: During the winter months of 2021, Delhi once again witnessed a drastic rise in pollution levels due to a combination of vehicular emissions, industrial activities, stubble burning, and weather conditions. The Supreme Court ordered immediate actions to reduce pollution levels. It directed various authorities, including the Delhi Pollution Control Committee (DPCC) and the Central Pollution Control Board (CPCB), to take emergency measures, such as:

- i. Banning the use of coal and firewood in industries and restaurants.
- ii. Strictly enforcing the Graded Response Action Plan (GRAP), including a ban on construction activities.
- iii. Restricting the use of diesel generators.
- iv. Immediate closure of polluting industries.

Stubble Burning in Neighbouring States (Punjab, Haryana, and UP): Stubble burning by farmers in Punjab, Haryana, and Uttar Pradesh, which occurs annually, was once again a major contributor to the rising pollution in Delhi. The Supreme Court issued strong directives to the state governments to take more stringent actions against stubble burning and to provide effective alternatives to the farmers. It also ordered Greater coordination between Punjab, Haryana, and Uttar Pradesh to tackle the stubble burning issue collectively. Providing subsidies or financial aid for machines to help in crop residue management, such as straw management equipment. Imposing fines on farmers who engage in stubble burning.

The Supreme Court of India in 2021-2022 continued to be actively involved in the fight against pollution in Delhi, issuing orders on various aspects of pollution control, including vehicular emissions, stubble burning, industrial pollution, and the need for better air quality monitoring. The Court's proactive stance aimed at ensuring that both short-term measures and long-term strategies were implemented effectively to improve air quality and reduce the adverse health effects of pollution in Delhi.

In the 2021-22 period, the Supreme Court continued its oversight over illegal encroachments and industrial activities, focusing on both the protection of urban planning laws and the prevention of environmental harm caused by such activities.

- 2) The Hon'ble Supreme Court of India taken up the matter titled as "MC Mehta Vs. Union of India" [WP(C) No. 4677/1985] frequently and passed following directions:

April 2021 – Encroachment on Public Land: In April 2021, the Court directed the Delhi Development Authority (DDA) to remove illegal encroachments on public land in various parts of Delhi. The Court expressed concerns over the unauthorized construction and land occupation in several areas, which not only violated zoning regulations but also led to environmental degradation. The Court issued strict instructions to local authorities, including the Municipal Corporation of Delhi (MCD), to ensure compliance with the law.

September 2021 – Illegal Industries in Residential Areas: The Court intervened when it was brought to attention that industrial units were operating in residential areas of Delhi. These industries were not only violating land-use regulations but also causing air and water pollution. The Court directed authorities to take stringent action against these illegal industrial units, particularly those causing environmental damage. The Delhi Police and municipal authorities were asked to identify and demolish such illegal industries in non-industrial zones, emphasizing the need for immediate compliance with environmental regulations.

November 2021 – Action on Industrial Units Using Hazardous Materials: In response to rising concerns about the health risks posed by illegal industries, especially those using hazardous materials, the Court directed the Central Pollution Control Board (CPCB) and the Delhi Pollution Control Committee (DPCC) to carry out regular inspections of industrial units and enforce environmental standards. The Court sought a detailed report on the illegal industries that were not complying with pollution control norms.

Hon'ble National Green Tribunal:

- 1) OA No. 673/2018 In re: News item published in "The Hindu" authored by Shri Jacob Koshy titled "More river stretches are now critically polluted: CPCB

Order dated 22.02.2021:

"The NGT issued directions for preparing action plan in respect of each of the polluted river stretch vetted by CPCB as per model plan, aiming restoration of water quality by preventing discharge of sewage and other waste and taking necessary measures in execution of integrated river rejuvenation plan. Execution to be monitored by Ministry of Jalshakti, CPCB and NMCG at national level and Chief secretaries at State level."

- 2) OA No. 593/2017, Paryavaran Suraksha Samiti & Anr. vs. Union of India & Ors.

Order dated 22.02.2021:

"The NGT Monitored compliance of judgment of the Hon'ble Supreme Court directing establishment and functioning of requisite ETPs/CETPs/STPs within specified time by issuing further directions including levy of compensation for non-compliance or delay in compliance."

- 3) OA No. 681/2018 News item published in "The Times of India" Authored by Shri Vishwa Mohan Titled "NCAP with multiple timelines to clean air in 102 cities to be released around August 15"

Order dated 08.04.2021:

"The NGT issued directions for action plans for air pollution and noise pollution control measures as indicated including setting up monitoring stations studying carrying capacity and source appointment and controlling activities beyond carrying capacity."

- 4) OA No. 117/2014 Shantanu Sharma vs. Union of India & Ors.

Order dated 18.01.2022:

"Direction for remedial action against pollution by Thermal Power Projects and also directed constitution of a fly ash management and utilization Mission to monitor issues relating to fly ash were issued."

- 5) OA No. 1016/2019 Utkarsh Panwar vs. Central Pollution Control Board & Ors.

Order dated 17.02.2021:

"Directed regulation of brick kilns in NCR to regulate air pollution".

- 6) OA No. 400/2017, Westend Green Farms Society vs. Union of India & Ors.,

Order dated 04.02.2021:

"Directions for bringing restaurants/ hotels/ motels/ banquets in consent regime for effective compliance of environmental norms including waste management, rain water harvesting, noise control, parking control, energy conservation, etc."

- 7) OA No. 141/2014, Saloni Singh & Anr. vs. Union of India & Ors.

Order dated 18.11.2021:

"Directions to Railway Administration for evolving and executing environment management plan at every railway station, bringing every such station within consent regime for regulation of environmental norms."

- 8) OA No. 89/2021, Varun vs. Govt. of NCT of Delhi & Ors

Order dated 08.04.2021:

"Directions against illegal drawl of groundwater by hotels in Paharganj."

- 9) OA 147/2021, Mahesh Chandra Saxena vs. The Chief Secretary, Govt. of NCT of Delhi & Ors.

Order dated 10.12.2021:

"Direction to monitor compliance of norms in functioning of rain water harvesting systems."

- 10) OA No. 640/2018, Sukhdev Vihar Residents Welfare Association & Ors. vs. State of NCT of Delhi & Ors.

Order dated 12.04.2021:

"Direction to maintain Waste to energy plant in working condition in compliance with the standards. Direction also issued to CPCB to issue protocol for operation of such plants."

- 11) OA No. 300/2020, Tilak Raj vs. Govt. of NCT of Delhi

Order dated 27.08.2021:

"Directions to prevent dumping of septage in drains and to take it to designated STP's."

CHAPTER XV

15. FINANCIAL STATEMENT 2021-2022.

Sl. No.	Accounts Branch	Amount (Rs.in Lakh)
	Achievement w.e.f. 01.04.2021 to 31.03.2022	TOTAL
	Particular	
1	CONSENT Fees received in financial year 2021-22	2505.00
2	Lab Fees received in financial year 2021-22	52.00
3	HMW Fees received in financial year 2021-22	11.00
4	BMW Fees received in financial year 2021-22	80.00
5	IMPORT/EXPORT Fees received in financial year 2021-22	06.00
6	Environmental Damage Compensation received in financial year 2021-22	1684.77
7	Diesel Cess Receipt in the financial year 2021-2022	1777.00
8	Amount Transferred to EV Fund as per new EV Policy dated 07.08.2020	1053.00